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Final Report
# of the
FORT UNION REGIONAL TASK FORCE
ON
SOCIAL AND ECONOMIC IMPACT

Compiled by Project Coordinator
and
Edited by Task Force Members

December 1976

Project Coordinator's Summary Report

The Fort Union Regional Task Force on Social and Economic Impact reviewed and discussed the many social and economic impacts resulting from energy development in the four states.

A major opinion of the task force was that present severance tax levels are adequate to cover impact costs. However, there are problems with timing and allocation of those severance tax funds.

This task force found a wealth of information existed on social and economic impacts. Major information sources include the Old West Regional Commission and Surface Environment and Mining (SEAM) project entitled "Energy Research Information System" (ERIS), Federal Energy Administration (FEA), Federal Regional Council, and the Energy Research and Development Administration (ERDA).

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FINAL REPORT

Introduction

From reports given by the social and economic impact panel to the Fort Union Coal Conference in October 1975 it was evident that social and economic problems were arising from the rapid development of coal in the northern plains states. Such problems included the sudden need for new services and facilities and the accompanying need for front-end financing to supply these services and facilities; inadequate expertise to plan properly; changes and problems of fixed income consumers; and changing social structures. Topics discussed related to recognition of impacted areas, assistance to impacted areas, and assessment of social and economic impact. Within these discussion areas the task force conferred on social and economic issues of energy development relating to population growth, transportation, communication, interstate impacts, and predevelopment impacts. In general, the task force recognized the need to address common issues of energy development.

Assignment

The social and economic impact panel of the Coal Conference made the following recommendations on guidelines for future discussions among the four states:

1. Drafting of a resolution to be considered by the respective legislative assemblies in the states of the Fort Union Coal Formation indicating the need for federal assistance to communities affected by the social and economic impact of energy development.

2. Quantification of impacts (including interstate impacts, community impacts, and regional impacts). Also quantification of effects on population, migration, and transportation needs.

3. Explanation of interstate solutions.

4. Sharing of information among states.

5. Representation of Indians on social and economic impact matters.

It is with these guidelines that the Social and Economic Impact Task Force began its workings.

Information Researched

One concern of the task force was loss of population and employment when development ends or moves out of the community originally impacted. The project coordinator prepared a report for the task force on the impact on communities when development ends referencing an Old West Regional Commission Study entitled "Construction Worker Profile" for the community of Conrad, Montana. Originally ABM facilities were to be installed at Conrad; however, construction was halted while the project was in the gearing up process. See Appendix "A", page 300, for a copy of this report.

The question of nuclear development and rumors related to the placement of nuclear demonstration plants or disposal of nuclear waste in the Fort Union Coal Formation states were discussed. In reports from the Federal Energy Administration and the Energy Research and Development Administration it was found that at the present time there are no existing plans to place nuclear plants within the Fort Union states or to deposit nuclear wastes in the Fort Union states. ERDA will be publishing a Waste Management Statement in January 1977. The project coordinator will receive a copy of this report and will forward copies to the task force members.

A great deal of discussion centered around front-end financing of social and economic costs. FEA was helpful in outlining front-end moneys that have been made available and expended in the Fort Union states. See minutes of the second meeting of the task force for further reference. With regard to solutions of front-end financing problems the task force reviewed the paper entitled "Solutions to Economic Impacts on Boomtowns Caused by Large Energy Developments" published by the Federation of Rocky Mountain States in December 1975. Many possible means of financing impact were outlined. See Appendix "B", page 302, for a copy of the excerpts utilized by the task force members.

The task force membership was interested in obtaining baseline information on impacted communities such as numbers of people, type of people, characteristics of incoming and outgoing population, in order to monitor status quo today rather than relying on projected scenarios. In response to this concern a joint study by the Federal Energy Administration, Region VIII and the Region VIII Federal Regional Council collected baseline data for the four states in the Fort Union area which will be released approximately January 1, 1977. The project coordinator has requested that copies of this baseline data study be sent to each task force member upon completion.

The Social and Economic Impact Task Force requested the Common Data Element and Information Exchange Task Force to encourage the establishment of a central point for the purpose of exchanging areawide information on energy development. The Common Data Element and Information Exchange Task Force has set up an information exchange system through the legislative service offices in the four states. See Appendix "C", page 333, for original motion made by Social and Economic Impact Task Force.

A second task force resolution requested the Common Data Element and Information Exchange Task Force to prepare a coordinated report on the present energy positions in each state. The Common Data

Element and Information Exchange Task Force has accepted this resolution and published a reference pamphlet for legislators delineating the present energy positions in the Fort Union states. See Appendix "D", page 334, for a copy of the Social and Economic Impact Task Force resolution.

A resolution was received by the Social and Economic Impact Task Force from the Taxation of Energy Resources Task Force requesting an answer to the question of whether or not the taxes collected at the present time and at the present level are sufficient to cover development impacts. See Appendix "E", page 335, for a copy of the Taxation of Energy Resources resolution. After discussion, the Social and Economic Impact Task Force came to the opinion that tax levels are sufficient, however, problems are with timing, i.e., front-end money is needed earlier, and secondly, allocation formulas may be inequitable. See Appendix "F", page 336, for the Social and Economic Impact Task Force's response. In further researching this question the project coordinator located several studies addressing the adequacy of taxes in general to cover impact. One paper was written by a research assistant, two research associates, and an associate professor at the North Dakota State University entitled "A Fiscal Impact Model for Rural Industrialization" prior to when the North Dakota severance tax law was passed. This paper reached the conclusions that the general tax structure is adequate to cover impact, but the problems of timing and allocation exist. A copy of this report is available from any task force member or the project coordinator. Another study done by a research associate and an associate professor at North Dakota State University entitled "Fiscal Impact of a New Industry in a Rural Area: A Coal Gasification Plant in Western North Dakota" was prepared after the passage of the present North Dakota severance tax law. This study also reached the same conclusion as did the Social and Economic Impact Task Force, however, it should be noted that the study focused on the entire tax system rather than just the severance tax. A copy of this report is also available from the project coordinator or a task force member.

Other areas of concern addressed by the task force without any conclusions being reached included the following:

1. Interstate problems, i.e., development in one state affecting and impacting a neighboring state, such as commuters living in one state and working in another, or pollution--either air, water or land--which runs through or blows through adjoining states.

2. Interstate problems related to transportation, i.e., railroad transportation of coal, increasing railway traffic in adjoining states, possible pipelines running through states other than where coal was mined, and transmission lines crossing other states. (These problems were addressed in more detail by both the Energy Development, Regulation, and Plant Siting Task Force and the Water Allocation and Quality Problems Task Force.

3. Preplanning--especially cooperative interstate preplanning.

4. Interest in having federal contact relating to social and economic impact. The committee felt the federal government should help out in impacted areas but because of the slow movement of federal bureaucracy, the states had to initiate

programs also. Hopefully through the organization of the Fort Union Regional Task Forces continual contact can be maintained with federal agencies such as FEA, ERDA, Federal Regional Council, etc.

5. Quality of life indexes were discussed but the committee concluded that little work had been done in this field and that the concept was not very well developed.

6. The task force felt that an increase in income level which resulted from energy development should not be eaten up or spent solely on necessities due to accompanying inflation and price rises at the location of energy development facilities.

7. Realization that all acts of the task force must be supported with input from the Indian representatives. In keeping abreast of Indian problems the project director of the North Dakota Indian Lignite Manpower Project kept the task forces (all seven) updated on his project. The Indian Lignite Manpower Project surveyed Indians in the North Dakota and Eastern Montana areas relative to employment within the lignite industry. A brief description of the project and its objectives is in Appendix "G", page 337. Data compilation not completed at this time but first reports are summarized in Appendix "H", page 343. As more statistics, computations, and analyses become available the project coordinator will distribute them to task force members.

The task force was interested in defining the permit processes required in each state to construct and operate a coal mine or other energy development facility. See Appendices "I", page 352, "J", page 358, "K", page 360, and "L", page 365, for a delineation of the necessary permits required in North Dakota, South Dakota, Montana, and Wyoming, respectively.

On behalf of the Fort Union Regional Task Force on Social and Economic Impact the project coordinator compiled impact studies completed by military installations in the four Fort Union states to draw possible comparisons between the impact of military installations and the impact of coal development and energy facilities development in the Fort Union region. For a copy of project coordinator's report see Appendix "M", page 368.

The task force membership was interested in investigating more specifically the effect of federal coal leases upon the four Fort Union states. This question was more adequately covered by the Energy Development, Regulation, and Plant Siting Task Force which met with Mr. Jack Horton, Undersecretary of the Interior, and discussed the issue of federal coal leases. See final report for the Energy Development, Regulation, and Plant Siting Task Force.

The Fort Union Regional Task Force on Social and Economic Impact reviewed all pending federal legislation related to energy development. The project coordinator will continue to monitor federal actions in the energy field and alert the task force members on major legislation speaking to the control of the social and economic impacts of development.

A resolution of the Common Data Element and Information Exchange Task Force was presented to the Social and Economic Impact Task Force. See Appendix "N", page 371, for a copy of this resolution. No action was formally taken by the committee.

The task force was interested in knowing what had been done or what was being done at the federal level to coordinate all social and economic data at one central collection point. A representative from the Federal Energy Administration (FEA) indicated that a major source of central information was the "Energy Information Research System" of the Old West Regional Commission and Surface Environment and Mining (SEAM) for this four-state region.

In general, there seems to be a great wealth of information on social and economic impact studies. The project coordinator will continue contact with federal agencies, regional agencies, and state agencies in order to present a more unified information base to the legislators in the four Fort Union states.

The Social and Economic Impact Task Force was interested in the effect the FEA state (energy) conservation program would have on the Fort Union states. An FEA representative made a presentation on the state conservation program. See Appendix "O", page 372, for a copy of this presentation.

Another major source of information for the Social and Economic Impact Task Force was a special study entitled "Western Boomtowns: Part 1: A Comparative Analysis of State Actions" prepared as a special report to the governors by the resource planner of the Western Governors' Regional Energy Policy Office. This is an "action-oriented, solutions-oriented" approach to solving the social and economic impact problems experienced in the western states. The task force will be able to utilize the suggestions outlined in the report. A copy of this report is available through the project coordinator or task force members.

On behalf of the Social and Economic Impact Task Force the project coordinator investigated two Federal Regional Council task forces working on special interest areas of energy development. The first Federal Regional Council task force is focusing on the "one stop permit process." The project coordinator has contacted the Federal Regional Council (FRC) and will receive all mailings regarding the workings of this special task force. The second FRC task force is dealing with information exchange. Here again, the project coordinator will be monitoring the activities of this information task force.

See Appendix "P", page 376, and "Q", page 381, for task force meeting minutes of the first and second meeting respectively.

APPENDIX "A"
Report Prepared for the Social
and Economic Impact Task Force
by the Project Coordinator
August 1976

REPORT OF IMPACT ON COMMUNITIES WHEN DEVELOPMENT ENDS

At the organizational meeting of the Social and Economic Impact Task Force, it was evident that the members were concerned not only with impacts on communities when development increased, but also the impact on communities when development ended. We have found no study that has dealt directly with the problem of impact on a community when a development project is completed or terminated.

However, a study was made for the Old West Regional Commission entitled "Construction Worker Profile," one part of which was for the community of Conrad, Montana. Originally, ABM facilities were to be installed at Conrad, beginning in the years 1970-1972. However, construction was halted in 1972. This study did not specifically address itself to the problem of impacts on the community when construction was halted but some conclusions and data can be drawn out of the report which directly relate to the fact impact did actually occur because of the project's termination.

The following information was taken from the Conrad, Montana, community report. The Army Corps of Engineers had projected a population increase to 6,000 persons for Conrad by 1975. Construction at Conrad began in the early 1970's and by 1972 about 3,000 new people had moved to the area because of the construction activity. In May 1972, the project was terminated suddenly because of the limitations on ABM installations agreed upon by the United States and the Soviet Union. Only an estimated 100 of the new families drawn to the area by the construction remained in the area after the project was terminated.

Several problems occurred as a result of the project's sudden termination: the school system had to honor the contracts of a large number of teachers who had been hired because of high anticipated school enrollments, and this financial burden created some difficulty because the tax base to support the increased school budget was suddenly gone; several land speculators lost money on their investments; and some businessmen who had made investments in order to expand their commercial enterprises had to make adjustments to the loss of anticipated increases in business. The net effect of the project, however, seems to have been beneficial.

Specific effects on population characteristics are as follows:

Age: It is probable that even though the missile site construction was halted and there was no operating force in Conrad, there had been some impact from the project. The newer residents were younger than the longtime residents, had somewhat larger households, and consequently made more demands on schools, recreation facilities, and housing than did the longtime residents.

Education: Educational attainments of Conrad residents were generally higher than for the population of Montana or of the United States. Many of the people who stayed after the construction of the missile site was terminated were professionals who had high educational attainments by comparison with the general population.

Occupation and industry: Conrad's occupation distribution was probably not changed significantly with the addition of the families who stayed after construction of the ABM was terminated. Among new residents, there were higher proportions of professionals and laborers than among longtime residents; and among longtime residents, there were higher proportions of managers, craftsmen, foremen, and retired persons.

Income: The longtime residents in Conrad tended to have higher incomes than did the new residents.

Residents' plans for staying in the area: It does not appear that the new residents were highly transient, but they did seem willing to leave the area if local work became unavailable.

The planning consultants that conducted this study noted that Conrad, Montana, was a very well-adjusted community to begin with. It had a supportive community backing which aided the ABM project considerably. This community organization was observed because there is no other currently affected or post-impact study community with the exception of Colstrip, Montana, which is a company town.

APPENDIX "B"
Prepared by the
Federation of Rock
Mountain States

SOLUTIONS TO ECONOMIC IMPACTS ON BOOMTOWNS CAUSED BY LARGE ENERGY DEVELOPMENTS

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DECEMBER 1975

INTRODUCTION

This volume summarizes the work, speeches and publications released by the author from September 1974 until December 1975 on the subject of "Boomtowns" related to large energy developments in the west. The purpose of participating in the conferences and activities covered in this volume was to assist in the development of real, practical and politically feasible solutions to a problem which has received a great deal of public attention in the Mountain West.

A basic premise in this work has been that financing front-end public facilities is the first "Boomtown" problem to solve. With facilities installed on a timely basis, state and local government are in a much better position to deal with the social stresses and other problems that can develop when new groups of people are thrown together rapidly in a new situation. These other problems, of course, must be solved before a viable, good community exists for both the present community and the new employees moving to the community.

SUMMARY

It happens that there are many ways to solve financing problems of "Boomtowns" because energy developments always provide more revenue in the state than the cost of public facilities and services caused by the development. Some solutions are better than others from a technical and timing point of view. However, political traditions and the willingness for change of each state requires that a stepwise analysis be made to achieve the most acceptable solution for that state. Tax and bonding systems are already an integral part of the law in each state and the changes that could feasibly be made within available time are important limitations. However, each state's local financing problem can be solved in some reasonable manner if the timetable for developing the energy project is known.

The method of analysis is as follows:

1. Determine the growth rate of construction and permanent employees versus a set time table.

2. Escalate these figures to include total people including the families and services personnel coincident with development.

3. Determine the cost and time required to build the key public facilities.

4. Study the tax revenue flow with time to the various government subdivisions from both the energy development and families influxing into the community.

5. Analyze the imbalances of tax revenues to government subdivisions not receiving the impact.

6. Within the available time, work out the best course of financing.

In the end, it turns out that the paramount problem is how deliberate the decision-making clock runs. If it doesn't run smoothly, no one --- neither government nor industry --- can make the employee predictions and development plans so necessary for planning orderly development. Neither local government nor industry can afford to spend the large sums of money needed for front-end public facilities unless the project is assured and the timetable is reasonably stable. The principal conclusions which are supported in each of the papers in this volume are summarized as follows.

September 4-5, 1975 - Annual Meeting of the Federation of Rocky Mountain States -

1. Energy must be developed where it is. In the west this is often near small communities where impact can be substantial.

2. Much of the state and federal legislation passed in recent years, while well intended, has preempted local powers and virtually assures that local government will fall behind in its preparation for growth.

Is this so in your state?

3. States must correct tax imbalances so that cities, schools, and counties stand together. When one government subdivision receives the principal tax base and another gets the principal impact, financial problems are inevitable.

4. Growth due to energy developments can be handled for a given level of government services without tax increases upon the people presently living in the area.

July 1975 - Published in Volume III, Energy Development in the Rocky Mountain Region: Goals and Concerns (Federation of Rocky Mountain States) January 28, 1975 -- based upon work submitted to the Wyoming Interim Legislative Committee, October-November 1974.

1. In Wyoming the capital cost of local public facilities (water, sewer, fire, libraries, recreation, health, police, schools and local roads) are about $1,900 per capita with an additional $500 per capita needed for state roads. (Assumes expansions in units of about 10,000 people --- this figure is probably questionable below growth units of 5,000 people.)

2. In order to provide growth in the Rocky Mountains without increasing the tax rates on local people, there must be an industry investment of $22,000 to $44,000 per new job which is taxable by local governments. The variation depends upon which state is being considered. Mineral industry investments are much higher than this and, therefore, can more than pay for impacts, if tax imbalances are solved.

3. Local financing problems include the timing of growth tax revenues, uncertainty of the project, project approval at higher government levels or by the courts, and tax imbalances between local jurisdictions.

4. The solution most technically feasible for local government and industry is a small federal or state revolving loan fund used for actual design of facilities just prior to a project permit, correction of local tax imbalances, and a state bonding mechanism which dedicates future industry tax revenues on the product to the bond. Local governments can receive on the order of 1-1/2 times as much tax for the same cost to industry, if tax is on the product and not assessed prior to the start of operations. The bond mechanism provides the leverage needed to supply large sums of front-end money before tax revenues begin to flow.

Revolving Loan Fund

Bonding mechanism

March 20, 1975 - Presented at the "Summit on Coal" conference sponsored by the Rocky Mountain Center on Environment and the Federation of Rocky Mountain States, Denver, Colorado -

1. The region and the nation badly need western coal. Every Mountain West state except Wyoming depends upon energy imports from another state or nation.
2. The lack of western coal places unnecessary pressure on the alternative fuels, oil and gas, which are badly needed for other uses.
3. Western energy can be developed without increasing taxes in the affected communities. To accomplish this, some problems on tax imbalances and revenue timing must be solved; but energy developments always provide more tax revenues than the public facility and impact costs.
4. The financial problems can be solved if approval for the projects proceed on an orderly and reliable timetable.
5. The big problem to work on is the excessive project delays being experienced.

August 21-22, 1975 - Salt Lake City, Utah, "Financing Infrastructures in Energy Production Areas" sponsored by Rocky Mountain Institute of Policy Research - Subject: The Role of Market Capital in the Solution of Boomtown Problems -

1. The nation must have the western energy reserves to sustain its economy and security.
2. More than 1-1/2 times the total U.S. oil reserve energy equivalent is economically recoverable under less than 1.3% of Wyoming land.
3. In our solutions to boomtown financing we have generally ignored solutions to local tax imbalances. While total revenues are adequate from energy projects, the tax base often assists a jurisdiction not impacted.

4. Capital requirements for the energy development facilities are staggering without industry being assessed additional taxes for impacts. The political system must be responsive to correcting tax imbalances and make the other decisions required to reduce uncertainties in order to utilize existing tax revenues efficiently before additional tax assessments.

Loan + Bond mkt. rather than Grants and Loan Guarantees

5. States and communities should use the traditional capital markets to the fullest extent to solve boomtown problems. Traditional loan and bond markets provide an automatic check and balance against construction of public facilities which may never be used. Grants and loan guarantees do not provide this protection.

October 30, 1975 - National Conference on Financial Requirements for Energy Development in the Western States Region, Albuquerque, New Mexico - Subject: Community Development Costs of Energy Development - Who is Responsible for Financing

1. The local financing and planning for any kind of energy development situation can be worked out if there is a decision-making clock that runs smoothly without erratic starts and stops which currently plague local planners and energy company predicitions.

Has your state fully planned for development?

2. Government is the proper entity for planning. Industry's role is to provide accurate, timely information and to pay its share of taxes.

3. Local leadership must be allowed to develop if it is not already in place; a good town requires good leadership. It is not a politically viable alternative for industry to substitute in the role of government.

4. We must not ignore solutions to tax imbalance problems, yet there are few state mechanisms to handle impacts in one area while another area gets the tax base.

Does your state have this?

5. We cannot ignore the fact that front-end costs require large capital expenditures, a problem which lends itself to state tax free bonding mechanisms which exist in only a few Mountain West States.

6. We cannot ignore the demoralizing effect of stops and starts of development on the local government plans and leadership.

7. If the timing of energy projects is known, the financing solution is relatively simple. The lack of a timetable, a decision-making clock that runs smoothly in the same direction is the main problem remaining to be solved on financing "boomtowns."

The reader's attention is called to appendices items IV, VI, and VII which includes a summary of the Wyoming impact legislation passed in 1975, a very helpful analysis of bonding and revenue dedication by Donald D. Kummerfeld, and a speech by Robert L. Pettigrew at the Vail Symposium which portrays very graphically the problems and personal commitment necessary for local officials in boomtown situations.

FINANCIAL CONSULTANT REPORT

INTER-OFFICE MEMORANDUM

October 28, 1974

Coal Tax Proposal

The Problem

The proposed Wyoming Community Development Authority legislation recently approved by the Select Committee appears to meet the need for a flexible borrowing mechanism capable of bringing large amounts of tax-free debt capital into the state to meet community needs for impact-affected public facilities. For communities and projects capable of generating taxes and user charges sufficient to pay normal debt service or lease payments from the outset, the proposed WCDA program is very helpful, since it avoids the problems otherwise encountered in piecemeal municipal borrowing on skimpy tax bases and inadequate debt limitations.

The proposed legislation does not, however, solve the problem of providing capital for impact-related projects which local governments cannot support fully from ordinary taxes and user charges, since the proposed WDCA is not structured to provide either debt service subsidies or capital grants to municipal borrowers.

The problem is most acute in the case of municipalities in the coal impact areas since their tax and user charge bases will probably not be sufficient to fully support debt service on loans to meet all capital needs in the foreseeable future. Exxon's projection for Campbell County, for example, shows a substantial shortfall in revenues required to service debt on municipal capital requirements during the next 25 years. A related aspect of the problem is the huge capital need for state highways in the coal impact area. Unless substantial additional revenues are provided, it is unlikely that the State will be able to build the roads required to meet coal impact needs, since the roads themselves are not revenue producing.

Since most of the growth impact causing the problem stems from coal development, it is logical that coal should support the bulk of the subsidy requirement described above. Yet while the need for capital subsidies is immediate in order to prepare for coal-related impact, coal production is presently too small to generate large tax revenues without very heavy taxes; and heavy taxes now would impede coal development by making Wyoming coal non-competitive. But coal production is expected to triple or quadruple in the next five years; hence, even a moderate tonnage tax (say 10¢ per ton) will produce substantial revenues in future years. For example, a 10¢ per ton tax today would produce about $2 million on 20 million tons per year; but by 1980 when production is expected to be more than 80 million, the annual revenue from such a tax would be more than $8 million.

Given the situation described above, the problem is how to borrow now against future coal tax revenues so municipalities (and possibly the state highway department) can get capital they would not otherwise be able to afford, even through Wyoming Community Development Authority lending and, at the same time, avoid heavy tax levels which could make coal development in Wyoming unattractive and non-competitive.

Alternative Solutions

1. Require coal companies to prepay taxes to provide an immediate pool of capital for subsidizing municipal projects.

   Advantages:
   --Simplicity
   --Money-in-hand
   --Reduces risk of dependence on future revenues

   Disadvantages
   --Coal companies incur heavy immediate cash requirements in addition to those normally involved in coal development
   --Could result in loss of tax benefits if companies were forced to treat prepaid taxes as capital cost. If money were in form of taxes which can be expensed, State could get twice as much money for same cost to company.
   --Not possible to "pass through" prepaid taxes to buyers under many existing coal contracts
   --In the event coal production does not occur, prepaid taxes would not be recovered..

2. Borrow on a deferred payment basis with increasing future coal taxes pledged to repay bonds.

Advantages:
- --Avoids heavy immediate cash requirement for coal companies
- --Allows companies to expense taxes on current basis
- --Minimizes tax burden on coal production by spreading tax over larger volume
- --Allows "pass through" of taxes to coal purchasers

Disadvantages
- --Involves risk that coal production and therefore coal tax revenues may be indefinitely delayed, thus resulting in shortfall in revenues available to pay debt service in the bonds.
- --Requires alternative source of debt service payment funds in early years of bond issue until coal tax revenues commence
- --Requires that existing coal producers with little impact responsibility pay a share of new coal development impact in other parts of the state
- --Requires a rather complicated and administrative mechanism to coordinate borrowing and subsidy functions

Analysis

Assuming the problems described above can be resolved, some form of borrowing against future coal tax revenues appears to be desirable, since it avoids major tax burdens on existing coal production but provides capital at an early stage in the coal impact process. Among the issues to be resolved are the following:

1. Alternative source of debt service payment funds in early years of coal tax

The easiest way to solve this problem is to capitalize interest in the early years of a bond issue until coal tax revenues have increased to the level where they could support the full amount of the debt service. The following example demonstrates this technique.

Year	Coal Tax Revenues[1]	Debt Service on $55mm[2]	Deficit (surplus)
1975	$2.0mm	$3.85mm	$ 1.85
1976	2.2mm	3.85mm	1.65
1977	3.0mm	3.85mm	.85
1978	4.4mm	3.85mm	(1.55)
1979	5.6mm	5.19mm	(.41)
1980	7.3mm	5.19mm	(2.11)

The actual amount borrowed in this example would be $55 million, of which $5 million is for capitalized interest and $50 million is used for projects. While this technique increases the effective interest rate on the $50 to more than 8%, it does provide the money before debt service can be supported fully from coal tax revenues. The only alternative to this method would be tapping other existing revenue sources, such as the severance tax.

2. Risk of coal tax revenue shortfall

To mitigate this risk, projections of coal tax revenues could be restricted to existing production plus planned production for which both user contracts and permits have been finalized. In addition, the bonds could be backed by the Special Reserve Fund of the WDCA which in turn is backed by the 1/2% severance tax pledge.

3. Impact on existing coal producers

While existing producers would have to pay the tax, it can be argued that they would, over the life of the bonds, pay much less than the future producers, since the debt service burden is to some extent being shifted toward future years. Further relief could be afforded existing producers by stepping up the tax rate in future years. For example, the rate might be 5¢ per ton from 1975-1977 and 10¢ per ton thereafter. But this would require even more capitalizing of interest.

4. Duration of tax

Assuming the coal tax is to be a special tax to meet temporary impact problems, it should be set up on a temporary, self-liquidating basis. For example, if all the impact borrowing were to be undertaken between 1975 and 1980 and the longest maturities were 20 years, the tax would automatically end in 2000 or whenever all the bonds were retired, whichever is earlier.

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[1] Assumes 10¢ per ton with 1-year lag

[2] Interest only 1975-1978; level debt service, 7% for 20 years thereafter

As coal tax revenues grow after 1980, it might be possible to provide that all excess revenues be used to retire bonds with the longest maturities. Thus, it is conceivable that all bonds would be paid off by 1990 and the tax would cease.

5. Administrative procedures

The proposed Wyoming Community Development Authority (WCDA) could administer the entire program, including the allocation of coal tax subsidy funds to municipalities and projects. But this might put an impossible political burden on a new quasi-independent agency. Therefore, it might be better to have DPAD and the Farm Loan Board undertake this task with WCDA restricting itself to lending only. This increases administrative complexity somewhat, since three agencies rather than one are involved. But this should not prove to be an insurmountable problem once the roles of the three agencies are clearly spelled out. For example, the process might work as follows:

1. DPAD accepts an application for subsidized loans and processes it to assure that project is high priority and subsidy is required.
2. DPAD forwards loan application to WCDA for credit check on non-subsidized portion of the loan
3. DPAD recommends action on loan to Farm Loan Board
4. Farm Loan Board approves or rejects loan
5. WCDA combines the loan with other subsidized loans and issues coal tax revenue bonds.

6. Project eligibility

To reduce the number of potential project applications to a manageable number, it might be well to focus the program on three areas of greatest financial need:

municipal water supply
municipal sewerage facilities
state highways.

In addition, the following criteria could be applied:

1. Projects must be in areas directly affected by existing and/or planned coal development and
2. Projects must be incapable of producing self-supporting revenues sufficient to amortize borrowing at "normal" user charges and tax rates.

7. Form of assistance

Subsidized borrowing as discussed above appears to provide the most effective way to get capital today on the basis of future coal tax revenues. However, there should be authority for capital grants from coal tax revenues where borrowing is impossible or impractical.

Appendix A summarizes the major provisions of a proposal incorporating many of the points discussed above.

Appendix B is a schemmatic diagram showing a possible flow of funds under the proposal.

WYOMING COMMUNITY DEVELOPMENT ACT

DESCRIPTION

This bill proposes the creation of a state authority capable of issuing tax free general purpose revenue bonds the proceeds from which would be used to finance a wide variety of needed public facilities as well as housing. Though this bill, because of its importance, is the cornerstone of the package of recommendations submitted, it is nonetheless designed to be only a part of a total legislative response to the problem of socio-economic impact. It does not attempt to solve all the problems, but focuses instead on establishing a method whereby political subdivisions and other entities can borrow money to meet those capital needs brought about by industrial impact.

It is not a revenue measure, it does not impose any taxes and it does not generate any revenues in addition to its own operating needs. Rather, it simply opens practical and workable channels through which public money can be responsibly borrowed on acceptable terms for impact related needs.

A key feature of the Authority which would be created under the bill is its ability to respond in a flexible and substantive way to a wide variety of financing problems we can anticipate with the coming industrial impact. Furthermore, it is designed to work compatibly, and to lend effective support to much of Wyoming's existing revenue legislation, as well as to the other legislative measures being recommended in this package.

The Authority is designed to be self-supporting, requiring no more than a repayable "first instance" appropriation to cover start-up operating costs. It would be structured as a public corporation, not a department of state government, thereby safely shielding the state from its obligations and liabilities.

While the Authority is vested with all the powers necessary to conduct a financial enterprise of this nature, at the same time a number of specific checks and controls are built into the bill. These are designed to assure the Authority's full compliance with the intent and purpose of the bill.

Because it deals with the extension of credit, the bill is necessarily technical in nature. Much of its content and drafting style is dictated by the requirements of the Wyoming Constitution, state statutes, the Internal Revenue Code and the investment banking community.

9-826. Short title.

Self-explanatory.

Page 2, line 7:

9-827. Statement of legislative findings and purposes.

This section simply serves as a brief, concise statement outlining the purposes and intent of the bill. Key points are that the bill addresses itself to the shortage of public facilities and housing which are related to industrial impact from whatever source, (does not limit itself to mineral development) and further, that it applies to any part of the state that is "adversely affected" (impacted), whether directly or indirectly. Finally, but of significance, it suggests that one of the "findings" must be that conventional financing sources are not available on terms the borrower can reasonably meet before the Authority can act.

Page 3, line 4:

9-828. Definitions.

This section simply defines a number of terms which are extensively used throughout the bill. The definitions are stated in a straightforward manner and need no further explanation.

Page 6, line 10:

9-829. Wyoming Community Development Authority.

Paragraph (a)

> This paragraph provides that the Authority be a "public corporation", or a corporate instrumentality of the state rather than a department of state government. There are many reasons why this is the standard form given to state authorities. First, it effectively separates the obligations and acts of the Authority from the state, which is necessary for constitutional reasons. Next, the Authority will in many respects be playing the role of a private bank. It will be generating its own income and paying its own way as a self-supporting operation. It must have the ability to make contracts, own properties, make investments and other commitments, all of which require flexibility in terms

of its organizational structure. This type of activity would be virtually impossible to conduct as a department of state government. The "public corporation" structure further allows for the Authority to set its own personnel and administrative policies. This is of particular importance as these policies relate to hirings, terminations and salaries.

This paragraph further provides for the appointment and terms of the Authority's Board of Directors as well as the selection of a chairman. It specifies that the Board of Directors shall appoint an Executive Director of the Authority.

Relative to the Board of Directors, it is provided that the Governor appoint seven of its members with the advice and consent of the Senate. The State Treasurer and the Executive Director are to be ex-officio members of the board, but shall have no vote.

Paragraph (b)

This paragraph provides that the Directors, other than the Executive Director, serve without pay except for reimbursement of actual expenses. It further specifies that the Directors fix the salary of the Executive Director and that the Executive Director will have the administrative responsibility of all working arrangements with the Authority's employees.

Paragraph (c)

Provision is made here for the term of existence of the Authority which shall be perpetual.

Paragraph (d)

This paragraph provides for the scheduling of meetings by the Board of Directors, and establishes a quorum to be a majority of Directors then in office.

Page 8, line 4:

9-830. Powers of the Authority.

This section deals with the powers vested in the Authority which are necessary for it to carry out its activities. You will note that they are for the most part stated in general terms and cover a broad scope of activities. It should be pointed out, however, that the intent of the bill is to create a legal entity which has the power to respond effectively to a wide variety of problems and demands resulting from industrial impact. Because it is not precisely known what these demands will be or from where they will originate, it was felt that maximum flexibility to respond should be built into the Authority's powers. As a practical matter there are many checks contained in the bill which serve to control the scope of the Authority's activities. In addition to Board appointments by the Governor with advice and consent of the Senate, provisions are made for annual financial examinations by a nationally recognized accounting firm, for the submittal of an annual report to the Governor and the Legislature, for budget review and approval, for certification by the State Treasurer that all bonds of the Authority are lawfully issued and do not constitute an obligation of the state, and for each bond issue to carry an Attorney General's opinion as to legality. Furthermore, any bond issue of the Authority will be subject to all limitations and controls that may be spelled out in the various bond resolutions required for the protection of the bond holders. The Authority will, of course, also have its own regulations by which it must abide.

Paragraph (a)

This paragraph provides for the Authority to procure liability insurance as it determines is necessary. It relates to the question whether state government or other political subdivisions can be sued under the doctrine of sovereign immunity and whether it is necessary to own liability insurance. Since this question has not been fully answered in the courts (case law says the doctrine is invalid) the option is granted the Authority to provide for its own insurance protection.

Paragraphs (b)(c) - Self-explanatory

Paragraph (d)

This paragraph provides that the Authority can make and implement its own rules and regulations with respect to all its activities. These rules are to be filed with the Secretary of State.

Paragraphs (e)(f)(g)(h)

The powers spelled out in these paragraphs, though broad in nature, are designed to give the Authority a full and flexible response to the varied demands for financing that might result from major industrial development impact.

Paragraphs (j)(k)(m)

These paragraphs provide that the Authority has the power to engage in planning, management and advising. Because of the lack of municipal expertise available, Wyoming's smaller towns which might have a need for municipal facilities as a result of industrial impact may not have the ability to plan and present a financial package to the Authority for its consideration. These paragraphs are designed to respond to that eventuality by giving the Authority an option to assist the community in such activities.

Paragraphs (n)(o)

These paragraphs spell out normal powers necessary for the proper conduct of the Authority's operations.

Paragraph (p)

This paragraph specifically points out that the obligations of the Authority in no way constitute an obligation of the state. This requirement further indicates the necessity for the Authority to be a "stand-alone" instrumentality of the state as opposed to a department or division of the state.

Paragraphs (q)(r)(s) - Self-explanatory.

Paragraph (t)

It was felt desirable to specifically state that the Authority could accept gifts or grants from any source for which this paragraph provides. It seems likely that a situation might arise, either where industry finds it in its interest to make a grant or gift to the Authority, or where the Authority engages in a project which could be financially supported by a government grant. This is particularly important in light of the recently passed Federal Housing and Community Development Act of 1974.

Paragraphs (u)(v)(w)(x)

These paragraphs grant to the Authority certain routine powers that are necessary for it to have, if it is to engage in two housing finance programs which are described more fully under paragraph 9-832 entitled "Purchase of mortgages and loans to lenders".

Paragraph (y) - Self-explanatory.

Page 14, Line 8:

9-831. Sale or lease of civic or water projects.

This section addresses itself to the possibility that the Authority might find it practical and convenient to own properties and lease them as opposed to loaning money and holding mortgages. It is not, of course, the intent for the Authority to become a property holder simply as a matter of policy; hence, this section further spells out the ability of the Authority to sell these properties to any municipality as soon as it becomes feasible. These paragraphs, then, simply give the Authority the widest operational options in order to implement various projects.

Page 15, line 2:

9-832. Purchase of mortgages and loans to lenders.

This section provides for the Authority to have the power to engage in two housing finance programs, each of which is designed to ease the financial squeeze being experienced in Wyoming's housing industry.

The first program, a mortgage purchase program allows the Authority to purchase or commit to purchase, mortgages from financial institutions. Generally this would be accomplished by the Authority issuing a forward commitment to a financial institution to purchase a residential mortgage which the financial institution would originate and service. Conditions would be attached to this forward commitment requiring that the home owner meet certain prescribed eligibility standards, that the residences meet certain location and construction standards, that the interest rate be restricted to certain levels and that the commitment be drawn down (the residences built) within certain time limitations. The Authority would in effect be assuming the role of a secondary market for mortgages originated and serviced by existing qualified financial institutions. This would be similar to the secondary market provided by large insurance companies, Fanny May and other sources.

The second program, a loan to lenders program, allows the Authority to make loans to qualified financial institutions, again with certain conditional agreements. Typically the loans would be backed by the full faith and credit of the financial institution and collateralized by the institution's portfolio or other acceptable collateral. Conditions would be attached to the loan similar to those under the mortgage purchase program. Under the loan to lenders program the Authority is playing a role similar to the Federal Home Loan Bank when it lends funds to a savings and loan association, or when Federal funds are borrowed by banks.

The main difference in the Authority's ability to play these roles when compared with other sources, is that the Authority uses tax free money and through the conditions it imposes, passes through the tax advantage (lower interest rates) to the home owner.

The line diagram on the following page illustrates the effectiveness of these two programs.

As a practical matter, each program accomplishes the same thing, relief to the home owner. Two programs are being proposed, however, because technical differences in the structure of financial institutions and special conditions make it more appropriate to use one or the other program in different cases.

A significant point which is also illustrated by the diagram is that the Authority is confined to dealing only with existing mortgage finance institutions. The Authority is removed from the direct home mortgage business, which continues to remain an exclusive function of existing financial institutions.

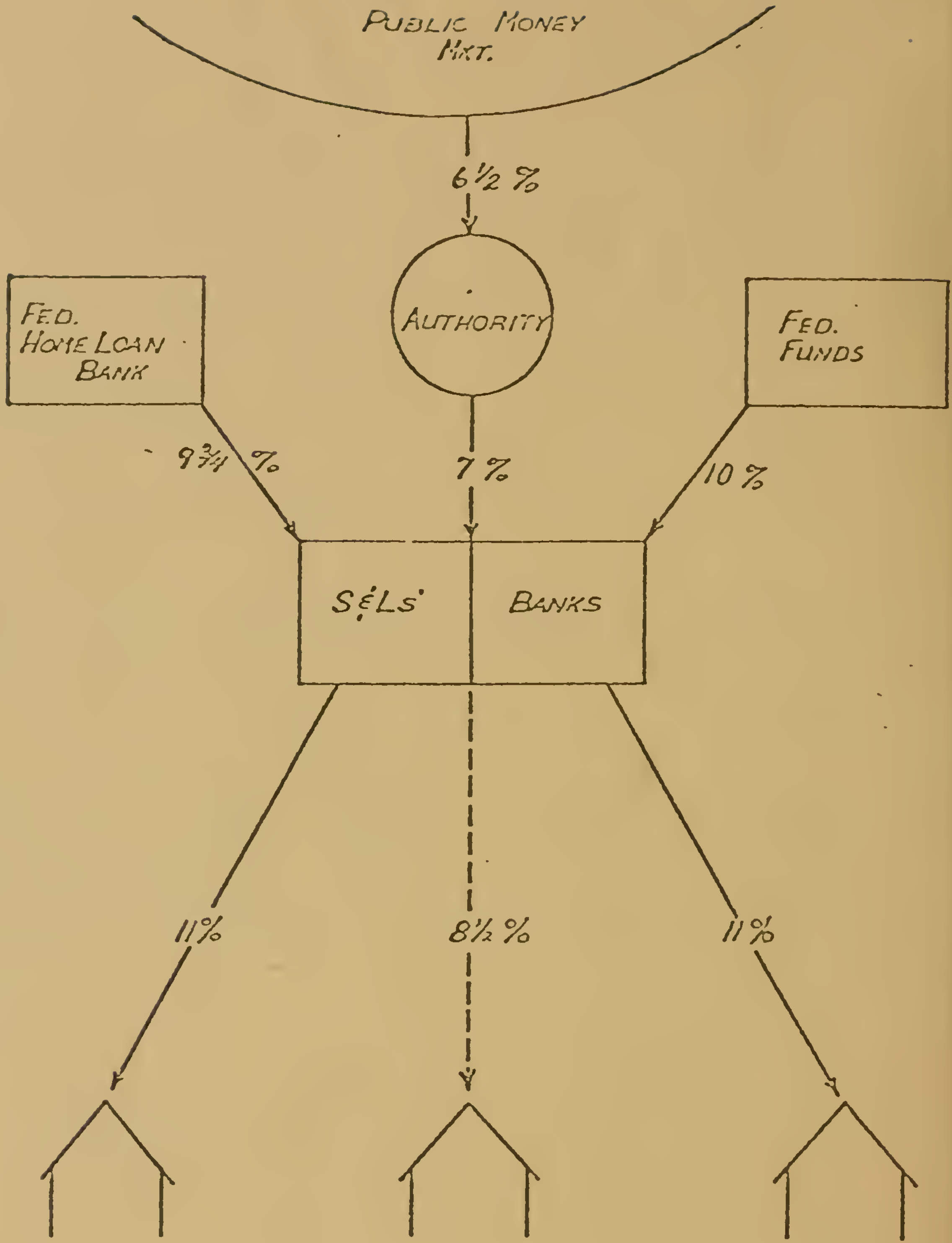
The Authority obtains its money to fund these programs by issuing tax free revenue bonds. Revenues used to repay the bonds are derived from scheduled mortgage payments (which are serviced by the financial institutions and passed through to the Authority) under the mortgage purchase program, and by scheduled loan payments from the financial institutions under the loan to lenders program.

Page 18, line 17:

9-833. Findings of the Authority.

Under this section, findings of the Authority, further limitations on the activities of the Authority are spelled out. The point is again specifically made that the Authority cannot enter into civic or water projects unless the facilities or accommodations cannot be adequately furnished by other sources.

Paragraph (b) of this section provides for the Authority to hold hearings concerning any project as it deems advisable but specifically exempts the Authority from the Wyoming Administrative Procedures Act. In discussions with representatives from the Legislative Service Office and Attorney



FINANCING TERMS	MONTHLY PAYMENTS $30,000 LOAN	QUALIFYING INCOME
11% 30 YRS.	\$285^{70}/MO.	$17,142 / YR.
8½ % 30 YRS.	\$230^{69}/MO.	$13,840 / YR.
	DIFFERENCE	$3,302 / YR.

General this exemption was recommended in view of the numerous, time-consuming difficulties resulting from requirements of the Wyoming Administrative Procedures Act.

Page 20, line 1:

9-834. Municipal Powers.

This section empowers municipalities to purchase or lease civic or water projects on terms mutually agreed upon. Furthermore, it empowers the municipalities to pledge, for payment of their obligations to the Authority, specific revenues, including service charges, rents, users fees, grants, contributions, sales tax or other excise tax, etc.

Paragraph (b) provides that in the event of default on payment by the municipalities to the Authority, any state agency, at the request of the Authority, will withhold from the municipality and pay directly to the Authority moneys in its possession which are pledged for payment of the obligation. Paragraph (c) states that no constitutional requirements relating to municipal debts shall be superseded by the powers granted to the municipalities by this act.

Page 21, line 17:

9-834. Multi-jurisdictional projects.

This section provides that the Authority may engage in projects requiring cooperation and participation of several governing bodies or agencies with mutual agreements for sharing costs, contracting, imposition of taxes or incurred debts, under conditions that each party involved is legally authorized to participate in such activities individually. The intent is to allow the Authority to work with the Joint Powers Act.

Page 22, line 12:

9-836. Securities issued by the Authority.

This section sets out the technical requirements surrounding any bond issue of the Authority. The prime purpose of this Authority is to create an entity which has the ability to issue its bonds or securities for sale in the public market, the proceeds from sales to be used for needed projects in the State of Wyoming. This section simply describes types of bonds or securities that the Authority is empowered to issue and relates other details incident to the securities. It should be noted in paragraph (b) there is a specific declaration that the obligations of the Authority (its bonds or securities) do not constitute a direct obligation or indebtedness of the state. Furthermore, it is provided here that Authority bonds be reviewed and certified as to legality by both the State Treasurer and Attorney General.

Page 26, line 2:

9-837. Bond authorization.

This section provides for a dollar limit of $100,000,000 as the total amount of bonds outstanding at any time, excluding bonds which have been refunded as provided by law.

Page 26, line 7:

9-838. Security for bonds; construction and acquisition of projects.

This section spells out in detail additional requirements and agreements that will be involved in the issuing of bonds by the Authority. Here again the requirements are relatively standard, but the language is necessarily technical. Note that periodic references are made to "proceedings", "resolutions", "indentures", and "trust indentures" under which the bonds of the Authority will be authorized to be issued. It will be in these instruments that further regulations insuring fiscal soundness of the bonds will be spelled out in final detail. Such restrictions, together with the "in house" regulations of the Authority, legislative over-sight and budgetary review as well as other constraints will serve as effective controls on the operations of the Authority permissable under this bill.

Page 28, line 12:

9-839. Funds and appropriations.

This section addresses itself to two matters which are extremely important as they relate to the marketability of the Authority's bonds to the public. The first matter, which is discussed in paragraphs (a)(b) and (c) deals with reserve funds. The second matter which is discussed in paragraph (d) deals with the "moral obligation" of the State of Wyoming to make up any deficiency that might occur in the repayment of the bonds. Before addressing these two matters some comment might be helpful. In order for the Authority bonds to be marketable at a reasonable interest rate in the public market, it must be demonstrated that revenues are, in fact, available from the projects funded or from other sources, to repay bonds on a timely basis. The market for the bonds is improved (this translates to lower interest rates) if more coverage (the amount of revenues relative to debt service requirements) can be demonstrated than necessary to service the debt. For example, a bond which can show 125% coverage will sell at a lower interest rate than a similar one with only 110% coverage. In addition to excess coverage, it is normal to fund a debt service reserve, generally in the amount of one year's debt service for the total bond issue, from which the Authority may draw to meet debt service requirements in the event revenues do not meet with original projections. In the case where the state does not assume a general obligation for the bonds, which will be the case in Wyoming, it is mandatory that this debt service reserve be fully funded at the time the bonds are issued. This initial funding is generally made out of proceeds from the bond issue it supports. For example, a bond issue at 7% for a term of twenty (20) years would require a debt service reserve in an amount equal to approximately 9% of the total bond proceeds.

It would appear that this type of "loading" would severely compromise cost of money to the ultimate user but it should be remembered that the debt service reserve funds can be reinvested to yield a higher return that the tax free interest paid on the public bond issue. Consequently, the initial funding of a debt service reserve out of bond proceeds should not impose any burden on the bond issue.

It may be desirable to establish additional special reserve funds to preserve or further improve marketability (low interest rates) of the bonds, and this is particularly true in cases where the full faith and credit of the state is not behind the bonds as will be the case with the Authority's bonds.

Paragraphs (a)(b) and (c) provide that a debt service reserve, fully funded out of bond proceeds in the amount of one year debt service, should be established for each bond issue. In addition to this debt service reserve fund, it is proposed that an additional special reserve fund be established from a continual pledge of moneys from the state equal to that amount which would be raised by a severance tax of 1/2 of 1%. Deposits are to be made to this special reserve fund until such time as a balance equal to one year debt service of outstanding bonds is reached and maintained. Should the pledge of severance tax income be in excess of that amount needed to maintain this balance, then the excess would revert to the general fund.

Should general revenues of the Authority be insufficient to meet the annual debt service requirements of its bonds, then it is proposed that deficiencies be made up out of this special reserve fund, the purpose being to preserve the integrity of the debt service reserve fund. Such an arrangement is significant because any impairment of the debt service reserve fund triggers a request by the Director and in turn by the Governor that the Legislature exercise its moral obligation to make up the deficiency. The moral obligation procedures are described more fully below. There are a number of other points that should be understood regarding this proposal for a special reserve fund made up from part of severance tax proceeds. First, its primary purpose it to insure against the eventuality that a call will ever be made upon the Legislature to exercise its moral obligation. Obviously, the more protective support that is given to the debt service reserve fund in the absence of the state's full faith and credit, the more marketable the bonds will be. This again translates to lower interest rates for the consumer which is another obvious benefit of the special reserve fund. Once the required balance in the special reserve fund is reached no further call on the severance tax proceeds is made and that portion pledged to this special fund then automatically reverts to the general fund. Only in the event that the prescribed balance is compromised will severance tax funds be once again diverted to this special reserve fund. It should also be understood that any reserve fund moneys will be invested to produce income and it is provided in this paragraph that the earned interest be used to defray the Authority's operations cost.

As a practical matter, provision is made for a contingent earmarking of a portion of severance tax proceeds to be used in funding a special reserve fund. This special reserve fund would be used only if calculated revenues did not meet debt service requirements. If revenues do meet or exceed debt service requirements as we would expect they would, then moneys in the special reserve fund will never be needed and, ultimately, would be returned to the general fund. In this event the maximum amount of moneys that could ever be "locked up" in this special reserve fund would be an amount equal to one year debt service of the Authority's outstanding bonds.

What we are accomplishing here as a practical financing technique is the leverage of a small amount of severance tax dollars into a large amount of public money dollars available to fulfill Wyoming needs at an acceptable interest rate.

Paragraph (d) provides for the moral obligation of the state to back up the Authority's bonds. As it was pointed out earlier, any device that gives additional assurance to the bond holder on bond repayment, such as excess coverage, debt service reserve funds, and special reserve funds, means improved marketability and lower interest rates. The lower rates on large, long term bond issues, even if only a fraction of a point, will mean considerable dollar savings to Wyoming people. Consequently, any reasonable device that can accomplish this should be used. One such device, for which there is ample precedent in other states, is known as the "moral obligation of the state" and back up the Authority's bonds. Recall that in earlier paragraphs there have been instances in which the state declared to be under no debt obligation to the Authority. This paragraph sets out that the state be "morally obligated", or obligated at the discretion of the Legislature, to appropriate on an annual basis such sums of money for the purpose of bringing the debt service reserve fund, should it become impaired in any one year, up to its prescribed level. This could occur only if three things took place. First, the projected revenues of the Authority would have to fall below the required debt service for the bond issue. Second, the special reserve fund would have to be insufficient to make up the deficiency in revenues and an additional draw down from the debt service reserve fund to meet the current debt service obligations would be required. Third, the Legislature, after being appropriately advised of the deficiency in the debt service reserve, would have to exercise its discretionary prerogative to appropriate funds to make up that deficiency. The Legislature is under no obligation to do so, but merely agrees under this paragraph to look at and consider the problem, should it occur.

Page 31, line 9:

9-840. Trust funds.

Self-explanatory.

Page 31, line 20:

9-841. Exemption from taxes.

This section merely spells out the tax exempt status of the Authority under state law. This does not relate to the tax exempt status of the bonds which, of course, is determined by the Internal Revenue Code.

Page 32, line 10:

9-842. Bonds as legal investments.

This section allows permanent state funds to be used to purchase the bonds if it is deemed desirable to do so, subject, of course, to other investment criteria governing these funds.

Page 32, line 14:

9-843. Agreement with the state.

The state agrees under this section that it will not abrogate any of the bond holders rights.

Page 33, line 3:

9-844. Remedies of the bondholders.

These paragraphs outline remedies of bondholders in the event of default and are fairly standard in content.

Page 34, line 18:

9-845. Moneys of the Authority.

This section provides that the Authority, acting as a semi-autonomous instrumentality of the state, will control its own operating account. The major portion of revenues, those which are to be used to repay the Authority bonds, will flow through tightly controlled trust arrangements as prescribed in the bill and in the various agreements and bond indentures incidental to the Authority bond issues.

This paragraph addresses itself to the Authority's operating fund. Because it will be engaged in many varied business type activities on a routine basis, control of its operating funds must lie with the Authority.

Ample checks are placed upon the Authority's handling of its operating funds through required annual audits as prescribed in paragraph (d) of this section, annual reports and submission for approval of its proposed budget to the Legislature as prescribed in Section 9-847.

Page 36, line 2:

9-846. Assistance by state agencies.

This section provides for the establishment of working channels of communication with other state agencies and departments.

Page 36, line 15:

9-847. Annual report; budget and appropriations.

This section provides that the same procedures used by other state departments will be used by the Authority in submitting its annual report, budget and request (if any) for an appropriation.

Page 37, line 3:

9-848. Special provisions regarding directors.

Self-explanatory.

Page 37, line 12:

Section 2.

Incidental to this bill is an appropriation request for $300,000 which will be necessary to defray operating costs until such time as the Authority can generate its own operating funds. Budget and revenue projections indicate that the appropriated funds can be repaid out of surplus accounts by 1982.

Page 37, line 16:

Section 3. Severability.

Self-explanatory.

Page 38, line 1:

Section 4. Effective date.

Self-explanatory.

SUMMARY

This tax package was tailored for Wyoming. Case studies were made on Campbell County (Gillette) to determine the fundamental problems. These problems are discussed in detail in Chapter 1, Volume II, of the Federation report. The case studies are in the appendix.

In brief the Wyoming problems were:

- Mineral tax base in the county but the impact would be in the city.
- Very low debt ceiling limits in constitution for both city and county; no way to change until 1976 general election; prevents them from helping themselves.
- No provision for the city and county to combine tax base to solve money impact problems.
- Water, sewer, and roads could not pay for themselves.
- Front-end capital; no way to leverage amount of money needed.

The Wyoming solution may not be fully applicable to Colorado because the tax imbalances may be different. Also whether the leases are private or federal makes considerable difference. However, this package is sound in principle; it does show how the problem can be addressed and tailored for each state to serve the best interest of both industry and government. The solution was worked out with national bond and banking counsel.

SEA 49 (SB 12)

Creates a Wyoming Community Development Authority ...

- Authorizes state bonds (on moral obligation basis) up to $100 million.
- Applicable to local public projects and home loans.
- The projects and/or local jurisdictions must secure and pay their portion of the bond.
- Home loan capital funds through Savings & Loans to a specific community with a specified markup negotiated by development authority. Loan rates in boom areas can be lowered about 2-1/2% to 3% through this process thus allowing more people to qualify for permanent homes.

SEA 81 (SB 14)

Amends the old Joint Powers Act to allow counties to join with cities on any public projects cities are empowered to do (counties were prohibited on water, sewer, etc)...

- Joint Powers agreements are voluntary, although Community Development Authority and state can "jawbone" during bond money commitment.

- Enables localities to solve tax imbalances if they will combine tax bases (i.e., the development being in the county and the impact in the city).

SEA 83 (SF 15)

Increases state sales tax return to local government ...

- To provide more money to local governments; it raises state sales tax refund from 1/6 to 1/3.

SEA 8 (SF 16)

Repeals some use tax exemptions ...

- It was originally intended for this also to be raised from 1/6 to 1/3 back to the local governments, but the legislature balked. Therefore, at present, the additional use tax will, except for the 1/6th, stay in the general fund.

- The purpose of this bill was early money on a big plant.

EJR 1 (SJR 1)

Will place a constitutional change on 1976 ballot to allow city and county debt ceilings to about double ...

- Old limits too low for industrial growth.

- This resolution is no help now; but if it passes in 1976, it will allow developing cities and counties to do more for themselves.

HEA 36 (HB 279)

Raises mill levy rate for schools ...

- New mill levy rates combined with Community Development Authority and state school trust fund increases local ability to prepare for impact.

HEA 118 (HB 204)

Levies graduated tax on coal to subsidize through Wyoming Community Development Authority, water, sewer and roads in impacted areas

- Tax is a severance tax starting .4% graduated to 2.0% in five years.

- Graduation is to minimize cost to existing coal production (in this case 92% is paid by new coal).

- Bond limit is for $120 million; tax self-destructs with payment of bond.

- Cities pledge about 1/2 of their normal users fee on water and sewer bonds; the remainder goes for their operation. The facilities are designed, contracted, and owned by the city upon approval of a state agency to receive the bond money. The bonding authority acts only as a broker to get front-end money.

- Highway Department, county, and city pledge gasoline taxes (and federal royalty, if applicable) from the growth portion only.

- The city, county, and highway pledges will pay about 1/2 of bond; the other 1/2 is paid by coal tax.

- The tax was designed to pay 20-year bonds in 17 years. Coal contracts are 30 years on take or pay; thus safety was built in.

- In early years when revenues are short of level debt service, the shortage is capitalized; money can be made available 2 years ahead of need.

- The tax was designed to pay water and sewer costs inside subdivisions in order to counter boomtown inflation. Ordinarily, developers pay the cost inside the subdivision, raising home cost about $2200 per unit.

SEA 82 (SB 88)

Housekeeping to allow Highway Department to pledge revenues to bonds sold under HEA 118 (coal tax subsidy).

RWJr
4/3/75

A MOTION MADE BY THE SOCIAL AND ECONOMIC IMPACT TASK FORCE AND DIRECTED TO THE COMMON DATA ELEMENT AND INFORMATION EXCHANGE TASK FORCE

A motion was made, seconded, and carried to encourage, through legislative action or otherwise, the establishment of a central point (letting each state decide which department would function as the central point) for the purpose of exchanging area-wide information on energy development, and that the central information exchange be functioning by summer 1977.

A RESOLUTION OF THE SOCIAL AND ECONOMIC IMPACT TASK FORCE

BE IT RESOLVED, that the Fort Union Regional Task Force on Common Data Element and Information Exchange be asked to coordinate and produce a handout, pamphlet, or report on the present position of each state with regard to energy development.

RESOLUTION BY THE
TASK FORCE ON
TAXATION OF ENERGY RESOURCES

May 4, 1976

WHEREAS, coal development in the four-state region affects social and economic conditions and it is the desire of the Taxation Task Force to know whether or not the taxes collected at the present time and at the present level are sufficient to cover the development impacts;

NOW, THEREFORE, BE IT RESOLVED BY THE TAXATION OF ENERGY RESOURCES TASK FORCE OF THE FORT UNION COAL OPERATION MADE UP OF REPRESENTATIVES FROM THE STATES OF NORTH DAKOTA, SOUTH DAKOTA, MONTANA, AND WYOMING:

That the Task Force on Social and Economic Impact is hereby requested to provide input to the Task Force on Taxation of Energy Resources on the question of sufficient tax levels to cover coal impact.

PARTIAL ANSWER TO THE TAXATION OF ENERGY RESOURCES TASK FORCE FROM THE SOCIAL AND ECONOMIC IMPACT TASK FORCE ON THE SUBJECT OF THE SUFFICIENCY OF SEVERANCE TAXES TO COVER IMPACT

The resolution requesting information from the Social and Economic Impact Task Force on whether or not present severance tax levels are sufficient to meet impact was discussed at the organizational meeting on May 21, 1976. Three main points came out of the discussion.

1. Yes, tax levels are sufficient; however, the main problem is that of timing. In other words, the very expensive front-end financing and cost of preplanning very desperately need current funding; however, the majority of the money available for "front-end" financing of impact will come only after mining has begun.

2. Taxes may be sufficient, but allocation directly to impact is insufficient.

3. More study would have to be done prior to formulating a complete response to the Taxation of Energy Resources Task Force and also the term "impact" would have to be defined by the Social and Economic Impact Task Force before any further response could be made.

APPENDIX "G"
Prepared by
Director of the
Indian Lignite
Manpower Project

BRIEF DESCRIPTION OF THE PROJECT

PROJECT TITLE: Indian Lignite Manpower Project

PROJECT DIRECTOR: Douglas J. Myers

PROJECT MANPOWER SPECIALIST: Russell Red Elk

PROJECT RESEARCH CONSULTANT: Dr. Donald F. Schwartz

FUNDING AGENCY: Economic Development Administration
U.S. Department of Commerce

OBJECTIVES OF THE PROJECT: The general objective of this project is to reduce unemployment among Indian people by providing a means for North Dakota and Montana Indian people to seek and successfully competer for jobs in the newly expanding lignite industry in these states. This objective will be accomplished by the following activities:

1) The project staff will work with the companies proposing to build coal gasification and electric generating plants to get assurances or guarantees of jobs for local Indian people;

2) The project staff will work with national, state and local labor unions to get the unions to help Indian people get lignite industry jobs;

3) The project staff will gather information on the potential number of Indian people who might be interested in these jobs and the type of jobs the lignite industry companies say they will have;

4) The project staff will work with vocational training schools such as the United Tribes Educational Technical Center in Bismarck, North Dakota, tribal governments and the BIA to set up needed training programs for Indian people;

5) The project staff will work with Tribal Manpower Offices and BIA

Employment Assistance Offices to establish a permanent means for helping Indian people to get new lignite industry jobs that open up in the future.

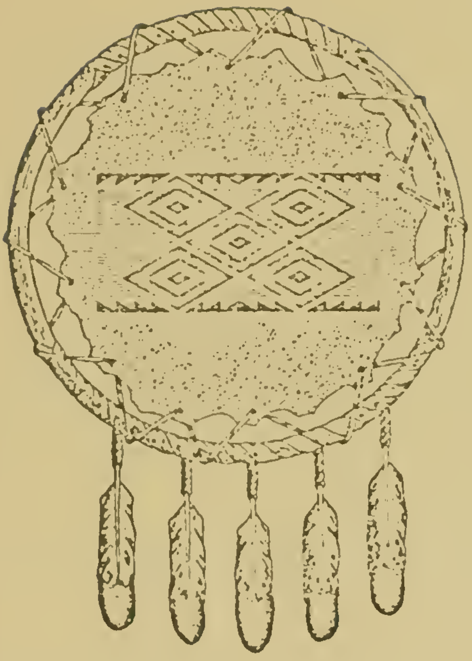
As the lignite industry develops in this region, Indian people will be competing with local and out-of-state nonIndians for jobs. This project will help Indian people competer for the jobs on an equal footing.

THE SURVEY PORTION OF THE PROJECT: To successfully carry out this project, it is necessary to know how many people are going to be interested in lignite industry jobs and what skills they have. It is also important to determine if interested people without the nesessary skills would be willing to be trained.

The best way to get this information is to interview a large number of Indian people to learn about opinions on working in the lignite industry, training, and relocating or commuting. The survey questionnaire will be answered by 1,000 people on reservations in North Dakota and eastern Montana. All the answers will be summarized in a report which the project staff will use to help lignite industry companies and unions develop plans for hiring Indian people. The report also will be used by training schools and tribal governments to obtain funding for training programs.

The outcome will be more jobs -- jobs paying $6.50 an hour and more -- available to Indian people.

ALL OF THE ANSWERS TO QUESTIONS IN THE QUESTIONNAIRE WILL BE WRITTEN UP IN SUMMARY FORM (for example, 15% said they have worked with heavy construction equipment). NO INDIVIDUAL WILL BE IDENTIFIED IN ANY REPORT WRITTEN FROM THIS STUDY. THE QUESTIONNAIRES WILL BE DESTROYED AS SOON AS THE INFORMATION FROM THEM IS SUMMARIZED BY A COMPUTER.



united tribes
educational technical
center
3315 S. AIRPORT RD. - BISMARCK, N.D. 58501

INDIAN LIGNITE MANPOWER PROGRAM

INDIAN LIGNITE MANPOWER PROGRAM

The Indian Lignite Manpower Program is designed to involve the Indian labor force from eastern Montana and North Dakota in the developing lignite gasification industry in the Northern Great Plains.

A major goal of the program is the reduction of Indian unemployment rates on North Dakota and eastern Montana reservations by securing jobs for Indian workers in the energy industry.

The program is a joint venture between the United Tribes Educational Technical Center and the U.S. Commerce Department's Economic Development Administration. Began in July of 1975, it is the first federally funded program of its kind in the nation.

Composed of four phases, the Indian Lignite Manpower Program includes: a survey of the available Indian labor force; a communications network between energy concerns, labor unions, and tribal governments; a crafts training program; and a liaison office as a locating and referral service for Indian workers.

SURVEY

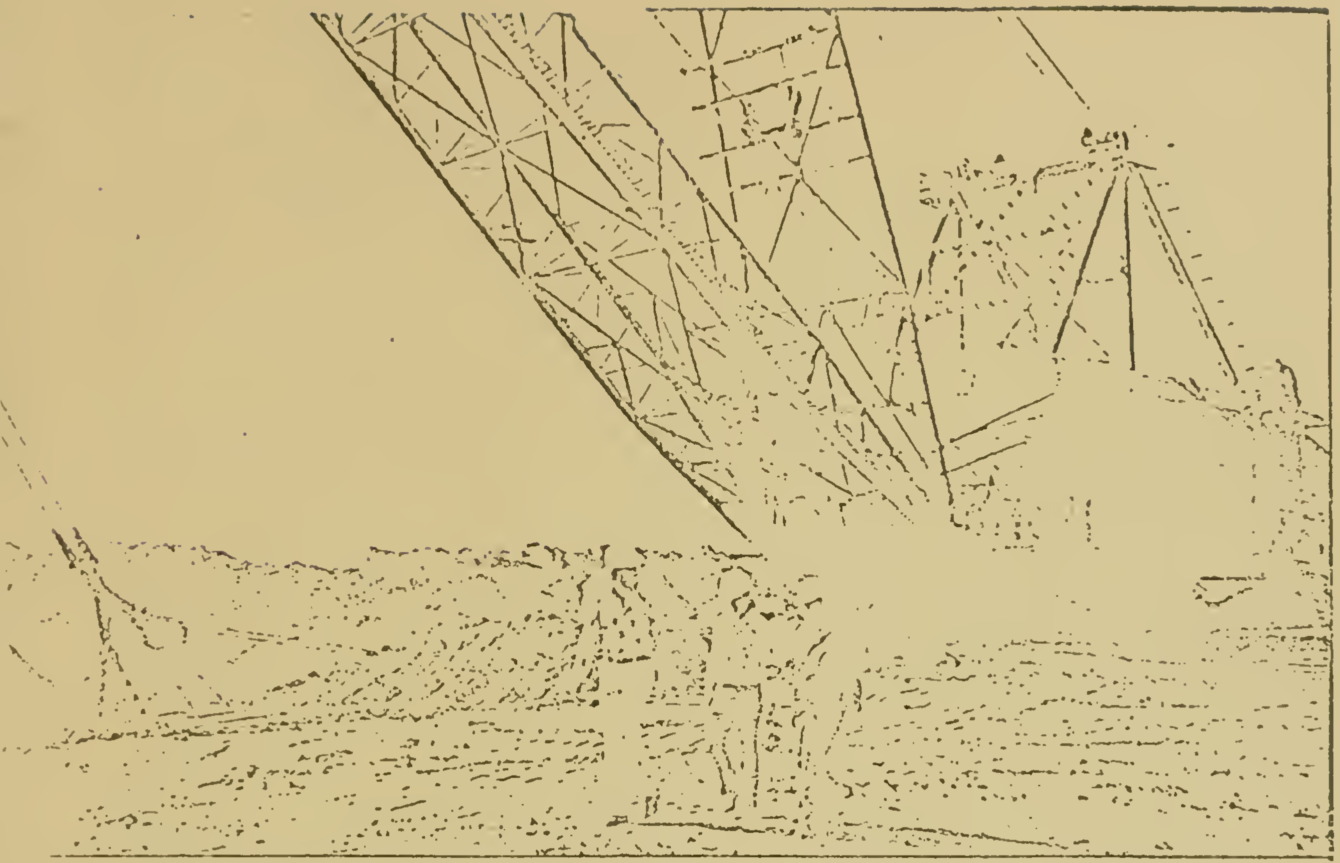
In February of 1976, teams of interviewers under the program began collecting information regarding the size and composition of the available Indian labor force on reservations in the region of present and expected lignite development sites in the Northern Great Plains.

The survey sample was drawn from the Fort Berthold, Standing Rock, and Turtle Mountain Indian Reservations in North Dakota, including Indian trust lands near Trenton, N.D. In Montana, Crow, Cheyenne, and Fort Peck Indian Reservation workers were interviewed.

The survey questionnaire was designed and its results tabulated by Dr. Donald Schwartz of the North Dakota State University Communications Department.

An 11 percent random sample, the male labor force was deliberately oversampled (85 percent) and the female labor force was undersampled (15 percent). Local interviewers from each reservation were trained to conduct one-hour personal interviews with respondents in the survey. Initial results show:

- 37 percent of the Indian labor force is unemployed with an additional 18 percent underemployed.
- 32 percent of the respondents had no dependents, although 49 percent had from two to six persons to support.
- 30 percent of Indian household heads earn less than $2,000 annually with another 17 percent earning less than $4,000 a year.
- 66 percent of the Indian labor force reported they would take a lignite industry job paying a minimum of $1,000 a month if they could live on the reservation and be home every night.
- 48 percent would take such a job if they had to travel 100 to 300 miles from their present home.
- 74 percent of the survey respondents said they would be willing to join a union to get a good paying job.
- 20 percent of the respondents have belonged to a union at one time, with 76 percent of that group reporting they liked belonging to a union.



Consolidation Public Relations Officer Tom Haffman escorts Indian Lignite Manpower Director Douglas Myers and U S Labor Department Economist Dr. Willis Nordlund on a tour of the Consolidation Coal Co. plant near Stanton, N D

COMMUNICATIONS

Involving Indian workers in the lignite industry requires the involvement of energy concerns, labor unions, related government agencies, and tribal governments.

Communication channels between the Indian Lignite Manpower Program's offices and those parties have been established in order to secure that involvement. Through those channels, the program is:

- disseminating pertinent survey results for use by the parties involved.
- determining the specific work skills and labor needed by energy companies presently in operation in the Northern Great Plains and by companies planning development in this region.
- developing working relationships with energy companies, tribal governments, and labor unions.
- providing advice and training to energy company and labor union personnel with regards to utilizing the available Indian labor force.
- insuring the ready acceptance of Indian workers by labor unions involved in energy development.

CRAFTS PROGRAM

The findings of the Indian Lignite Manpower Program's survey, while showing great interest among Indians for lignite industry jobs, revealed that a majority of the Indian labor force lacks the basic skills required for lignite jobs.

To supply those skills to Indian workers, a lignite industry crafts training program at the United Tribes Educational Technical Center is anticipated. Working in conjunction with already existing United Tribes vocational programs of welding and building trades, the expected crafts training program will include iron work, pipe fitting, welding, carpentry, electrical work, and boiler making.

Each of the six expected crafts study areas will be designed for completion by the student in one year.

Anticipated student body size is seventy students a year.

The skills acquired through the crafts training program are those needed during the constructional phases of the lignite industry. Students enrolled in the crafts program will also receive instruction in United Tribes personal development and adult education classes. That instruction is specially designed to ease the often difficult transition from reservation life to more urban settings.

LIAISON OFFICE

The Indian Lignite Manpower Program anticipates the establishment of a liaison office to work in concert with the crafts training program. The employment of a recruiter for the office is expected.

The function of the liaison office will be the smooth and steady flow of Indian trainees through the crafts program and into lignite industry jobs and apprentice programs. Those Indians already possessing basic lignite industry skills will be referred through the liaison office to appropriate state and energy company employment bureaus.

DEVELOPMENTAL IMPACT

The success of the Indian Lignite Manpower Program can have a major impact both economically and developmentally on North Dakota and eastern Montana Indian communities. Reducing reservation unemployment rates and bringing capital through lignite industry jobs to depressed reservation economies can be realistic outcomes of the program.

Net income, calculated on an average individual wage of $12,000 per year, for five hundred unemployed Indian workers placed in lignite industry jobs could bring over five million dollars a year to the economies of Indian communities.

Five hundred Indian jobs in the lignite industry may be a conservative estimate. Government figures anticipate between 12,000 and 15,000 new lignite industry jobs in the Northern Great Plains within the next twenty-five years, with several thousand new jobs opening within the next five years.

UNITED TRIBES

The United Tribes Educational Technical Center is a nonprofit educational institute designed to provide Indian people with academic, vocational, and social skills. Located on 105 wooded acres south of Bismarck, North Dakota, the school offers comprehensive one-year programs of study in ten career fields: auto mechanics, auto body repair, building trades, business clerical, food services, nurse aide, para-professional counseling, painting, police science, and welding.

Initial survey results are discussed at a meeting between energy company, labor union and state government representatives.

UTETC is governed by an intertribal organization of North Dakota's five Indian tribes: the Sisseton-Wahpeton Sioux, the Devils Lake Sioux, the Turtle Mountain Chippewa, the Three Affiliated Tribes, and the Standing Rock Sioux. Opening its doors in 1969, UTETC is the only Indian owned and administrated school of its kind in the nation.

UTETC also sponsors on the school's campus the American Indian Curricula Development Program, an alcoholism project, an Equal Opportunity program in cooperation with the North Dakota Highway Department, the Women's Education Equity Program, and a CETA (Comprehensive Employment Training Act) project.

For more information on the Indian Lignite Manpower Program contact:

Douglas J. Myers, Director
Indian Lignite Manpower Program
United Tribes Educational Technical
Center
3315 S. Airport Road
Bismarck, North Dakota 58501

Telephone: (701) 255-3285 ext. 287

APPENDIX "H"
Prepared by
Director of the
Indian Lignite
Manpower Program

Reservation Manpower Survey Supplement
October 22, 1976

Section VII: Employment Status Relationships

Table 1: Percentages of males and females/employment classes

Employment Status	male N = 576	female N = 140
Full time job	45%	40%
Part time job	14%	6%
Seasonal job	6%	5%
Unemployed	35%	49%
	100	100

Table 2: Average ($\bar{X}$) level of education in employment classes

Employment status	N	Mean years of education	Standard deviation
Full time job	305	11.9	2.2
Part time job	86	11.6	2.1
Seasonal job	42	10.7	2.4
Unemployed	267	10.8	2.0

Table 3: Level of education and employment status

	Level of Education		
Employment status	8th grade or less N=107	9 to 12th grade N=415	1 or more years beyond high school N=195
Full time job	37%	38%	59%
Part time job	9%	12%	15%
Seasonal job	10%	6%	4%
Unemployed	43%	44%	22%
	100	100	100

Table 4: Percentage who would change jobs for equal pay by employment category

Job loyalty	Employment Status Full time job N=308	 Part time job N=88	 Seasonal job N=40
Would change	44%	74%	75%
Would not change or undecided	56%	26%	25%
	100	100	100

Section VIII: Lignite Industry Job Interest Relationships

Table 5: Percentages of men and women interested in lignite industry jobs if they can live on the reservation

Lignite employment choice	Males N=584	Females N=149
Take job	70%	50%
Refuse job	14%	29%
Undecided	16%	21%
	100	100

Table 6: Percentage of respondents at various levels of personal income interested in lignite industry jobs if they can live on the reservation

	Income Level				
Lignite employment choice	Under 2000 N=217	2000-3999 N=123	4000-5999 N=108	6000-9999 N=146	10,000 or more N=65
Take job	70%	71%	70%	62%	40%
Refuse job	13%	14%	10%	19%	45%
Undecided	17%	15%	20%	19%	15%
	100	100	100	100	100

Section IX: Attitudes toward relocation

Interest in taking a lignite job off the reservation reported in Section III was checked against a set of questions designed to measure attitude toward living away from the reservation. The findings verify the reported intentions: individuals who say they would relocate to take a lignite industry job have more positive attitudes toward living off the reservation than do individuals who would refuse such a job.

Experience living off the reservation was found to affect attitudes toward living off. Individuals who have lived off the reservation sometime in the past have more positive attitudes toward living off than those who have not. And, although the relationship was not strong ($r = 0.18$), the longer respondents lived off the reservation, the more positive were these attitudes.

INDIAN LIGNITE MANPOWER PROJECT

Preliminary Report of Reservation Manpower Survey

by

Donald F. Schwartz, Ph.D.
Research Consultant
North Dakota State University
Fargo

September 14, 1976

An 11% random sample of the labor force between the ages of 18 and 46 was drawn from two Montana and five North Dakota reservations or rural settlement sites. The male labor force was deliberately oversampled (85%) and the female labor force was undersampled (15%). Local interviewers were trained to conduct one-hour personal interviews with persons in the sample. Interviewing began in late February at Fort Totten and the last interviews were completed in early July. Statistical analysis of the data is now in progress (September 14, 1976) at North Dakota State University. Figures presented in this report are based on initial computer printouts. More detailed analyses will be available in a report to be ready for distribution in late October.

According to BIA 1975 figures, the potential labor force for the study sites included in this survey is 8500. Following are the B.I.A. figures for each study site:

	1975 Reservation Population	Labor force (16 and older)
Montana		
Crow	4144	1506 (905m, 603f)
Fort Peck	4543	1730 (951m, 779f)
North Dakota		
Fort Berthold	2780	983
Turtle Mountain	7550	2204
Standing Rock	4883	1229
Fort Totten (pre-test site)	2336	590
Trenton-Williston Trust Lands	1200*	324
	27,436	8,566

Caution is advised in multiplying percentages given in this preliminary report times either the labor force total or individual reservation numbers. The sample in this study included only 18-46 year olds and proportionately fewer women than included in the total labor force. Weighed projections will be included in the final report. Second, percentages on individual items reported here may vary from individual reservation to overall percentage.

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*estimate

Section I: Sample Characteristics

1. Reservation sample sizes

	N	% of total
Montana		
Crow	117	16%
Ft. Peck	184	25%
North Dakota		
Ft. Berthold	91	12%
Standing Rock	105	14%
Turtle Mt.	190	26%
Williston-Trenton	32	4%
Ft. Totten	16	2%
	735	

2. Employment status

	N	% of total
Full time, year around job	314	43%
Part time job	89	12%
Seasonal job	43	6%
Unemployed	271	37%
NR	18	
	735	

Of unemployed, 82% report seeking employment.

3. Age

	N	% of total
18 - 26	313	43%
27 - 36	244	33%
37 - 46	171	23%
NR	7	1%
	735	

4. Marital status

	N	% of total
Married	391	53%
Previously married	89	12%
Single	251	34%
NR	8	
	735	

5. Number of Dependents

None (single, supports no one)	237	32%
One	64	9%
two-three	212	29%
four-six	149	20%
seven-nine	39	5%
ten or more	4	1%
NR	30	4%
	735	

6. Sex

Male	585	80%
Female	149	20%
	734	

7. Number of years of education completed

Eight or less	88	12%
Nine-eleven (some H.S.)	230	31%
Twelve (H.S. graduate)	194	26%
Thirteen (one year college or vocational)	100	14%
Fourteen or more	103	14%
NR	20	
	735	

8. Personal income of respondent for 1975

0-1,999	217	30%
2,000-3,999	123	17%
4,000-5,999	109	15%
6,000-9,999	146	20%
10,000 or more	65	9%
NR	75	10%
	735	

Section II: Job Training and Experience

A. Jobs Related to Mining or Power Plant Operation
(Job categories identified in Renner Report)

Job Title	Percent of labor force who have completed a classroom course in it	Percent of labor force who have completed an OJT program	Percent of labor force who have worked at this job in the past four years
Civil Engineer	0.14%	---	---
Electrician	1.0%	0.7%	1.2%
Heavy Equipment Operator	5.2%	3.6%	10%
Carpenter	4.6%	0.8%	12.5%
Heavy Truck Driver	1.1%	0.7%	3.5%
Surveyor	0.4%	0.4%	1.1%
Accountant	1.0%	---	0.4%
Secretary	1.6%	---	2.6%
Keypunch Operator	0.3%	---	0.3%
Janitor	0.4%	1.0	7.8%
Auto Mechanic	6.4%	1.1%	4.0%
Clerical	5.6%	1.9%	8.3%

B. Selected Other Job Categories
(Not all reported job titles are recorded here.)

Bookkeeper	0.7%	---	1.2%
Administrator	1.0%	0.7%	3.0%
Personnel Manager	0.6%	---	1.1%
Social/Welfare Worker	1.4%	1.0%	5.3%
Elementary/Secondary Teacher	0.8%	---	2.0%
Teacher Aid/Tutor	0.4%	1.1%	6.4%
Waitress	---	---	1.6%
School Cook	0.4%	0.3%	0.8%
Baker	0.14%	0.14%	0.4%
Cooks Helper	0.3%	0.14%	1.5%
Emergency Treatment or Nurse's Aid	1.6%	0.41%	2.2%
Policeman	1.9%	0.6%	1.9%
Groundskeeper	---	0.3%	1.5%
Rancher	---	---	3.3%
Farm Labor	---	---	11.3%
Steel Mill Worker	---	0.3%	0.4%
Diesel Mechanic	0.4%	0.3%	0.4%
Painter	0.4%	0.4%	1.8%
Sheet Metal Shear Operator	0.6%	0.6%	0.6%
Welder	7.2%	1.5%	3.8%
Cement finisher	0.6%	0.7%	2.3%
Construction Laborer	0.41%	0.68%	7.9%
Maintenance Man	---	---	2.9%
Bus Driver	---	---	2.9%
Laborer	---	---	6.8%
Oil Rigger and Roughneck	---	0.3%	1.9%
Dispatcher	0.8%	0.4%	1.2%

Section III: Interest in Lignite Industry Jobs/Commuting/Relocating

1. 66% of the labor force report they would take a lignite industry job paying a minimum of $1000/month if they could live on the reservation and be home every night; 17% would refuse; 17% were undecided.

2. If they had to commute an hour or more to work everyday, 63% would take it, 17% would refuse and 18% were undecided. (2% didn't respond)

   a. If the commuting could be done in a car pool or by bus, about 20% of those who were undecided or refused would now take the job.

3. If they had to live off the reservation to take the job - 100 to 300 miles from their present home - 48% report they would take the job, 31% would refuse, 20% were undecided.

   a. Of those who would relocate who have families, 64% would definitely take their family with them, 22% would not.

Note: Relocation and commuting intentions reported above are being cross-verified with a battery of attitudinal items on those two topics.

   b. 74% of the respondents have lived off the reservation at one time in their life; over 50% have lived off 4 or more years.

   c. 66% agreed with the statement "Indian people who move off the reservation are not given fair treatment compared to non-Indians when it comes to getting good jobs" and 57% agreed with the statement "Indian people who move off the reservation are treated with little respect by non-Indians."

4. In response to the statement "I would like to get a job in the coal industry in this area", 17% disagreed, 48% agreed, and 35% were undecided.

Section IV: Union Experience/ Attitudes

1. 20% of the respondents have belonged to a union at one time: 1/3 of these belonged for only one year, half of them for 2 or less years.

2. 5% of the respondents currently hold union membership.

3. Of the 20% who had been union members, 76% report they liked belonging to the union, 7% disliked it and 17% were unsure of their feelings.

4. 74% of the respondents reported they would be willing to join a union to get a good paying job; 10% would not.

5. 66% of the respondents agreed with the statement "labor unions are usually helpful to their members" and 53% agreed that "labor unions make sure everyone has an equal chance at jobs."

Section V: Interest in Job Training

1. 79% report they would take training for a $1000/month job if they didn't have the background for it; an additional 11% would under certain conditions.

   a. Of those who specified conditions, 54% (6% of the total) would want a job guarantee at the end of training; 46% (5% of the total) would want a partial salary; 41% (5% of the total) would want to be able to live at home while training and 36% (4% of the total) want to be able to at least go home weekends.

Section VI: Job Search Information Sources

1. Source of information about present or most recent job

Newspaper want ads	3%
State employment office	9%
Private employment office	2%
BIA employment assistance office	14%
Word from a relative	17%
Word from a friend	31%
Word from a caseworker	4%
From a newsletter	4%
Misc.	16%

a. Summary

Employment services	25%
Word-of-mouth	52%
Media	7%

APPENDIX "I"

Prepared by the staff of the
North Dakota Legislative Counc
June 1976

MEMORANDUM

PERMITS REQUIRED TO CONSTRUCT ENERGY CONVERSION FACILITIES AND TIME LIMITATIONS ON PERMIT GRANTING ACTIVITIES

It seems that 12 state-level permits would be necessary prior to construction of a typical energy conversion facility. In addition, there are several county-level permits required. The following principal permits are required or should be considered (numerous additional "filings" are required):

1. A certificate of site compatibility must be obtained from the Public Service Commission prior to construction of an energy conversion facility. The law (Section 49-22-10, North Dakota Century Code) provides that the Public Service Commission must act on a final application for a certificate within one year of its receipt, if received before July 1, 1977. If received after July 1, 1977, the Public Service Commission has six months to act upon the final application.

   By regulation (R49-22-06) the Public Service Commission has required that a letter of intent be filed one year prior to the filing of the final application for a certificate of site compatibility. The purpose of this letter is to allow the Public Service Commission to determine its jurisdiction over the application and to initiate any preliminary activities that may be necessary to process the application.

   In addition, Section 49-22-04 requires the annual filing of 10-year plans by all utilities that own or will own within the next 10 years any facility covered by the Conversion and Transmission Facility Siting Act. This 10-year plan includes a description of the location, size, and type of facility, as well as a description of the efforts by the utility to coordinate its plan with that of other utilities. Also to be described are the efforts to protect the environment and to comply with local land use planning requirements. The 10-year plan should also contain a statement of the projected demand for the service rendered by the utility over the 10-year period. A five-year facility development plan also must be filed annually by a utility that owns or will own a facility during any five-year period. This five-year plan must describe the utility's efforts to meet and fulfill any projected future demands for service during the period covered in its 10-year plan.

2. A "public" utility must secure a certificate of public convenience and necessity from the Public Service Commission before construction or operation of any energy conversion facility. There is no time provided for in the law within which the Public Service Commission must act on such an application. This certificate is required by North Dakota Century Code Chapter 49-03, and has the effect of allowing the public utility to exercise the right of eminent domain.

3. Section 49-22-11 requires that an application for a permit for a transmission facility be filed not more than two years after a certificate of site compatibility is issued. This permit is issued by the Public Service Commission and the law provides six months within which the commission may act.

   It appears from Section 49-22-16, subsections 2 and 4, that other agencies having responsibilities in the area of granting permits to energy conversion facilities are to exercise their responsibilities in advance of Public Service Commission action. Section 49-22-16 provides that a permit for the construction of a transmission facility may supersede and preempt any county or city land use, zoning, or building rules, regulations, or ordinances upon a finding by the Public Service Commission that those rules, regulations, or ordinances are unreasonably restrictive in view of the existing technology, costs or economics, or the needs of consumers. The same is not true, however, with regard to a certificate of site compatibility, which may not supersede such ordinances. Section 49-22-16 also provides that other state agencies authorized to issue permits relating to the construction of energy conversion facilities are to participate in and present the position of that agency at public hearings and other activities of the Public Service Commission on its determinations of site or transmission corridors. The section also provides that no site or route shall be designated and approved which violates state agency regulations.

4. A conditional permit to appropriate water is required before construction of an energy conversion facility needing water. This permit is issued by the state engineer, who has the exclusive power to do so. As a practical matter, however, the state engineer consults with the State Water Commission before acting on any large industrial application for water that may have far-reaching effects. The law does not provide for a time within which the state engineer must act on an application, and regulations have not been promulgated that prescribe a time limit for action on applications. After construction, a perfected water permit to actually appropriate water and apply it to a beneficial use is required. (Chapter 61-04, NDCC)

5. A permit to construct a facility which may cause air pollution is required from the North Dakota Health Department. The law does not require the Health Department to act on applications within a certain time, but regulations have been promulgated that require the Health Department to act on applications within 90 days of receipt. The effect of this is that applications must be filed 90 days before construction. The Health Department also requires a permit to operate a facility that may cause air pollution. Its regulations require that an application for such a permit be filed 30 days before operation, and also require the Health Department to act within 30 days of the receipt of that application. (Chapter 23-25, NDCC)

6. Before construction, the plant site must be zoned for the industrial use proposed. Zoning is established by the Board of County Commissioners pursuant to recommendations by the County Planning and Zoning Commission. (Chapter 11-33, NDCC) Pursuant to Chapters 24-05 and 24-07, any requirements of an energy conversion facility that involve the acquisition or vacation of roads or access to existing roads must be approved by the local county commission.

7. A water pollution discharge permit from the North Dakota Health Department must be issued before any polluting discharges may be released into the state's waters. The law does not prescribe a time limit, but regulations require an application for a permit be filed 180 days before discharge. This permit is not required before construction of an energy conversion facility, but it would obviously be advisable to apply for such a permit before construction. (Chapter 61-28, NDCC)

8. A permit from the North Dakota Health Department for the treatment of solid wastes is required before any such treatment facility may be operated. The law does not provide a time limit for action by the Health Department, and regulations have not been approved as of the date of this memo. The proposed regulations would require applications for permits to be filed 90 days before operation of a treatment facility. This permit is not required prior to construction, but only before operation of such a facility. It would again be advisable, however, to apply for such a permit prior to construction. (Chapter 23-39, NDCC)

9. A consideration before constructing an energy conversion facility would be whether the same company intends to operate a coal mine to supply the facility. If that is the case, a permit to mine coal must be issued by the Public Service Commission before mining commences. An application for a coal mining permit is deemed to be approved if it is not denied within 60 days of its filing. In addition, limited mining plans and extended mining plans must be filed with the Public Service Commission by all mine operators. The limited mining plan covers the three-year term of the mining permit, and the extended mining plan covers a 10-year period.

Both mining plans must include a description of the tracts of land to be affected by the surface mining, the approximate number of tons of coal to be removed from the land described, the location and composition of coal to be mined, and any other information the commission may require. (Chapter 38-14, NDCC)

10. Also to be considered by a foreign corporation desiring to do business in North Dakota, is the fact that a certificate of authority for a foreign corporation to transact business in North Dakota is required from the Secretary of State, pursuant to NDCC Chapter 10-22.

Please see the attached tables for other, more minor, authorizations that may be involved.

STATE-NORTH DAKOTA PERMITS

HEALTH DEPARTMENT

AP Permit to Construct

AP Permit to Operate

Permit - Solid Waste

Permit - Discharge

Safe Drinking Water Act
Federal Regs. will apply

Noise
No Regulation to Date

HIGHWAY DEPARTMENT

Permit for Railroad Crossing
Highway 200

INDUSTRIAL COMMISSION

Drilling Permit - Basic
Coal Exploration

PUBLIC SERVICE COMMISSION

Permit to Engage in Surface
Mining

a) Limited Mining Plan

b) Extended Mining Plan

Certificate - Plant Siting

a) 5 Year Plan

b) 10 Year Plan

Certificate - Pipeline Siting

Certificate - Water Pipeline
Siting

Certificate of Public Convenience
and Necessity

NORTH DAKOTA AERONAUTICS

FAA - License - Compliance with N.D.A.

SECRETARY OF STATE

Certificate of Foreign Corporation
to do Business in North Dakota

STATE FIRE MARSHAL

License to Use Explosives

STATE GEOLOGIST

Underground Injection Control

STATE LAND DEPARTMENT

Drilling Permit - State School Lands

Lease - State School Lands

WATER COMMISSION

Water Permit

8-26-75

DUNN COUNTY PERMITS

DUNN COUNTY COMMISSIONERS

Permit Radioactive Material Use for Non-destructive Testing

Right-of-way Acquisition to Build Alternate Roads and Railroads and Alternate Water Lines

Petition for Approval of Access to County Roads

Petition for Order Vacating Portion of a Highway and Closing Section Lines

DUNN COUNTY PLANNING COMMISSION

Filing Notice of Buried Transmission Lines

Met Tower Special Use Permit

Zoning Change - Plant Site

Zoning Change - Mine

DUNN COUNTY REGISTER OF DEEDS

County Notice of Intent to Drill (Monthly Report)

Plats for Plant

Plat for Solid Waste Management Facilities

APPENDIX "J"

24 1976

STATE OF SOUTH DAKOTA
Legislative
Research
Council

Wesley Tschetter, Director
Legislative Research Council
State Capitol
Pierre, South Dakota 57501
Phone (605)224-3251

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June 23, 1976

Senator Harold D. Schreier
R.R. 2, Box 64
Flandreau, South Dakota 57028

Dear Senator Schreier:

This letter is in response to the questions that evolved from the Fort Union Task Force on Social and Economic Impact.

1. Which permits must be secured and what timing sequence must be followed before coal mining or energy plant construction can be commenced?

Permits required for surface mining are of two types: (1) Exploration Permit; and, (2) Surface Mining Permit.

The duration of these permits are one year and they can be renewed, suspended or revoked for a violation of the mining statutes (SDCL 45-6A).

Approval of a reclamation plan by the State Conservation Commission is required before the commencement of operation. Failure of the Commission to respond in writing within thirty calendar days to the plan as submitted shall constitute its approval.

No permits are required for industrial siting.

(2) Which office, if any, is considered the central office for the answering of energy related questions, which office in your opinion should be the central office?

South Dakota does not have a designated central office to answer energy related questions, however, the following departments and offices deal with specific energy related questions:

1. Department of Natural Resources - water permits

2. Department of Environmental Protection - air quality standards

3. State Planning Bureau - information source
4. Office of Energy
5. Department of Agriculture - surface mining, reclamation

In response to your question regarding severance tax I have enclosed a copy of South Dakota's mineral extraction tax enacted in 1975. This is not a severance tax as such but a 4% tax on the net profits derived from the extracting of minerals including coal. The bulk of the tax is paid by gold mining operations in the state with a smaller but significant amount paid by the state Cement Plant. Estimated revenue for FY 76 was $650,000, all of which by law is deposited in the state general fund. There is no provision for applying the money to the impacts of extraction. Due to recent developments in the gold market and some local factors the actual tax revenue realized may be somewhat less than estimated.

Sincerely yours,

Steve
STEVE MERRICK
Research Analyst

SM:jb

cc: Sheila C. Miedema
Project Coordinator
Fort Union Regional Task Forces

APPENDIX "K"
Prepared by
Project
Coordinator

PERMITS REQUIRED
MONTANA

Coal Mining:

A prospecting permit must be obtained from the Department of State Lands for prospecting on lands not included in a current operating permit. A reclamation plan and bond must be submitted. Annual progress and revegetation reports are required.

Statute: Strip & Underground Mine Reclamation Act, 50-1034 et seq., R.C.M. 1947

Regulations: MAC 26-2.10(10)-S10190 et seq.

Contact: Department of State Lands
Reclamation Division

A mine site location permit is required prior to any preparatory work, unless an operating permit has been granted under Chapter 10 of Title 50(see p. 19), and the application for such a permit included a long-range mining plan. The siting permit is valid for one year and is renewable until an operating permit is obtained.

Statute: Strip & Underground Mine Siting Act, 50-1601 et seq., R.C.M. 1947

Regulations: MAC 26-2.10(18)-S10380 et seq.

Contact: Department of State Lands
Reclamation Division

An exploration license is required from the Department of State Lands and a reclamation and vegetation bond is required. A development permit is required before doing any preparatory work. A reclamation plan and reclamation and vegetation bond must be submitted. Exemptions may be available for small operations and for federal lands.

Statute: Hardrock Mining Act, 50-1201 et seq., R.C.M. 1947

Regulations: 26-2.10(2)-S10000 et seq.

Contact: Department of State Lands
Reclamation Division

Safety regulations are enforced by the Workers Compensation Division. A mining plan must be approved by the Department of State Lands before engaging in strip mining of coal. An operating permit must be obtained from the Department of State Lands to engage in coal or uranium mining. A reclamation bond and written permission from the surface owner is required, and a reclamation plan must be submitted to the Department. Annual planting and reclamation reports are required.

Statutes: 50-401 et seq., R.C.M. 1947
Strip Mined Coal Conservation Act, 50-1401 et seq., R.C.M. 1947
Strip & Underground Mine Reclamation Act, 50-1034 et seq., R.C.M. 1947

Regulations: MAC 26-2.10(14)-S10360 et seq.
MAC 26-2.10(10)-S10190 et seq.

Contact:		
	Department of Labor & Industry Workers Compensation Division Safety & Health Bureau	Department of State Lands Reclamation Division

An operating permit must be obtained from the Department of State Lands. A reclamation and vegetation bond is required, and a reclamation plan must be submitted. Annual reports and fees are required and the Department makes annual inspections for compliance with the reclamation plan. Exemptions may be available for small operations and federal lands. The Workers Compensation Division enforces safety regulations.

Statutes: 50-101 et seq., and 50-1201 et seq., R.C.M. 1947

Regulations: MAC 26-2.10(2)-S10000 et seq.

Contact:		
	Department of Labor & Industry Workers Compensation Division Safety & Health Bureau	Department of State Lands Reclamation Division

No mining is allowed unless the miner has entered a reclamation contract with the Board of Land Commissioners. A reclamation plan must be submitted. Exemptions may be available for small operations or federal lands. The Workers Compensation Division enforces safety regulations.

Statutes: 50-101 et seq. and 50-1501 et seq., R.C.M. 1947

Regulations: MAC 26-2.10(6)-S10070 et seq.

Contact:		
	Department of Labor & Industry Workers Compensation Division Safety & Health Bureau	Department of State Lands Reclamation Division

Operations on State Lands:

The Board of Land Commissioners may issue leases for the development of natural resources located on state lands.

General Leasing Regulations: MAC 26-2.2(2)-S210 et seq.

Leases are awarded by competitive bidding at no less than fair market value. The primary term is for ten years, and for so long thereafter as coal is produced in commercial quantities. Rent and royalties must be paid.

Statute: 81-501 et seq., R.C.M. 1947

Dams and Reservoirs:

Construction on navigable waters of the U.S. requires licensing by the Federal Power Commission and the Army Corps of Engineers. Upon complaint, the Department of Natural Resources & Conservation must inspect and approve dams and reservoirs on state waters.

Statutes: Federal Power Act, 16 USC 791a et seq.
Rivers and Harbors Act, 33 USC 401 et seq.
89-701 et seq., R.C.M. 1947

Contact: Department of Natural Resources & Conservation
Water Resources Division
Engineering Bureau

Army Corps of Engineers
District Engineer

Federal Power Commission

Hydroelectric Sites on State Lands:

The Board of Land Commissioners may grant leases for construction and operation of hydroelectric power sites on state lands. Hydroelectric plants on navigable waters of the U.S. must be licensed by the Federal Power Commission.

Statutes: 81-1801 et seq., R.C.M. 1947
Federal Power Act, 16 USC 791a et seq.

Contact: Department of State Lands
Centralized Services Division

Federal Power Commission

Mains:

Gas, water and other mains are regulated and approved by the city or town council or the Board of County Commissioners.

Statutes: 11-975 and 16-1114, R.C.M. 1947

Contact: Local Governing Body

Major Facility Siting:

Certification by the Board of Natural Resources & Conservation and the Department of Health & Environmental Sciences is required for construction of major utilities (power generation plants, transmission lines, pipelines, etc.). For details and agency contacts, see P. 14 above.

Statute: 70-801 et seq., R.C.M. 1947

Regulations: MAC 36-2.8(1)-S800 et seq.

Overhead Lines:

The city or town council may regulate erection of poles and cables within city limits. The owner of agricultural lands may petition the district court for permission to relocate overhead lines.

Statutes: 11-945; 24-101 et seq.; and 24-201 et seq., R.C.M. 1947

Contact: City or Town Council

Pipelines:

Permission to construct and operate pipelines must be obtained from the Public Service Commission.

Statute: 8-201 et seq., R.C.M. 1947

Contact: Department of Public Service Regulation
Utilities Division

Utility Easements:

Easements along highway rights-of-way are granted by the Department of Highways.

Regulations: MAC 18-2.6A1(6)-S6080 et seq.

Contact: Department of Highways
Right-of-Way Bureau

Utility Extensions:

The city council has the power to grant permission to extend utility facilities, subject to petition and referendum.

Statute: 11-3316, R.C.M. 1947

Contact: City or Town Council

APPENDIX "L"
Prepared by
Wyoming Industrial
Siting Office

Permits Required to Construct (and Operate) A Coal Mine In Wyoming

Table I presents a listing of permits required prior to construction of a coal mine and processing facility. These must be obtained prior to commencement of any construction activity.

TABLE I. CONSTRUCTION PERMITS

	Permit	Permitting Authority
1.	Industrial Siting Permit for facilities having a construction cost in excess of $50 million.	Industrial Siting Council (W.S. 35-502.75-94)
2.	Air Quality Construction Permit	Air Quality Division, Wyoming DEQ (W.S. 35-502.16-17)
3.	Approval Under 40 CFR 52.21(e)(2)- Prevention of Significant Deterioration	U. S. Environmental Protection Agency (40 CFR 52.21)
4.	License to Explore	Land Quality Division, DEQ (W.S. 35-502.1-56)
5.	Permit to Mine	Land Quality Division, DEQ (W.S. 35-502.1-56)
6.	License to Mine	Land Quality Division, DEQ (W.S. 35-502.1-56)

Table II comprises a listing of permits and/or approvals necessary to construct and operate various components of the reference facility.

TABLE II. PERMITS AND APPROVALS REQUIRED FOR CONSTRUCTION AND OPERATION OF COMPONENT FACILITIES

	Permit/Approval	Permitting Authority
1.	Ground Water Appropriation	State Engineer (W.S. 14-121 to 41-147)
2.	Approval of Water Pipeline	State Engineer (W.S. 41-10.4)
3.	Reservoir Permit - Raw Water Holding Pond	State Engineer (W.S. 41-26 to 41-46)
4.	Reservoir Permit - Wastewater Evaporation Ponds	State Engineer (W.S. 41-26 to 41-46)

Permit/Approval	Permitting Authority
5. Reservoir Permit - Coal Storage Runoff Retention Pond	State Engineer (W.S. 41-26 to 41-46)
6. Reservoir Permit - Plant Site Runoff Retention Pond	State Engineer (W.S. 41-26 to 41-46)
7. Temporary Water Rights for Construction	State Engineer (W.S. 41-10.1)
8. National Pollutant Discharge Elimination System (NPDES) Permit	Water Quality Division, DEQ W.S. 35-502.18-19) (PL 92-500 Section 402(b))
9. NPDES Permit for Construction Runoff at Railroad Spur	Water Quality Division, DEQ (W.S. 35-502.18-19) (PL 92-500 Section 402(b))
10. Approval of Wastewater Evaporation Pond (s)	Water Quality Division, DEQ (W.S. 35-502.18-19)
11. Approval of Coal Storage Runoff Retention Pond	Water Quality Division, DEQ (W.S. 35-502.18-19)
12. Approval of Plant Site Runoff Retention Pond	Water Quality Division, DEQ (W.S. 35-502.18-19)
13. Approval of Sewage Treatment Plant	Water Quality Division, DEQ (W.S. 35-502.18-19)
14. Approval of Potable Water Supply for Plant Personnel	Water Quality Division, DEQ (W.S. 35-502.18-19)
15. Approval of Spill Prevention Control and Countermeasure Plan	Water Quality Division, DEQ U. S. Environmental Protection Agency (W.S. 35-502.18-19) (PL 92-500 Section 311)
16. Approval of Location of Major Utility Facility - Transmission Line if larger than 69 kV	Public Service Commission (W.S.37-31)
17. Certificate of Public Convenience and Necessity - Railroad Spur	Public Service Commission (W.S.37-31)
18. Utility Crossing Permits for Transmission Line Crossing other Utilities	Public Service Commission (W.S.37-31)
19. Solid Waste Disposal Permit	Solid Waste Management Division, DEQ W.S. 35-502.42.44)

Permit/Approval	Permitting Authority
20. Utility Crossing Permits for Transmission Lines and Pipelines	Highway Department (W.S. 1-791)
21. Easements for Transmission Lines, Pipelines, roads, and railroads on State Lands	State Land Board (W.S. 36-7)
22. Operating Permit	Air Quality Division, DEQ (W.S. 35-502.16-17, 35-502.47)

The above described permit requirements for a coal mine and processing facility represent perhaps a worst case example. The construction of a particular facility would likely not require all the permits listed. However, any given facility would require a majority of permits listed, and a cross-section of several facilities permit requirements would probably reveal even more permit requirements than those identified herein.

APPENDIX "M"

A Report Prepared by Project
Coordinator for the Social &
Economic Impact Task Force of
the Fort Union Regional Area
August 1976

SOCIAL AND ECONOMIC IMPACTS BY MILITARY INSTALLATIONS IN THE FOUR STATES OF NORTH DAKOTA, SOUTH DAKOTA, MONTANA, AND WYOMING

There are presently 13 military installations in the four states of North Dakota, South Dakota, Montana, and Wyoming. All 13 installations were queried as to whether or not social and/or economic impact studies had been done and were available for reference to the public. Of the 13 installations, 10 responded.

Six responded by saying no impact study was available. Those six are as follows: Finley Air Force Base, Finley, North Dakota; Fortuna Air Force Base, Fortuna, North Dakota; Malmstrom Air Force Base, Malmstrom, Montana; Havre Air Force Base, Havre, Montana; Minot Air Force Base, Minot, North Dakota; U.S. Coast Guard Omega Station, LaMoure, North Dakota.

Two installations responded by saying economic impact reports have been finished recently on the impact of the base on surrounding areas; however, these studies were made after the installation had been operational for a long period of time. These two installations are Ellsworth Air Force Base, Ellsworth, South Dakota, and Grand Forks Air Force Base, Grand Forks, North Dakota. Copies of these impact reports can be obtained by the project coordinator if the task force wishes to continue in this direction of study.

Only two military installations responding did have impact studies available. They were Warren Air Force Base (economic impact on Cheyenne, Wyoming) and the Stanley R. Mickelsen Safeguard Complex (impact on the Grand Forks, North Dakota area). A summary of the Warren Air Force Base estimated total economic impact on Cheyenne, Wyoming during fiscal year 1975 was approximately $140,957,945.

The military work force of 4,023 personnel constituted approximately 19 percent of the total work force within Laramie County. During fiscal year 1975, there were an average of 635 civil service employees at the Warren Air Force Base. A large majority are home owners, thereby adding significantly to the economic growth through payment for taxes, utilities, purchase of food, clothing, furniture, appliances, automobiles, and numerous other items required by a family and homeowner.

The total dollar value of the Warren Air Force Base including helicopters, minutemen missiles, missile facilities, equipment, family housing, land and structures, is $1,049,309,940.

The military personnel payroll for fiscal year 1975 was $37,265,400. The civilian employed payroll take home pay during fiscal year 1975 was $5,275,902.

The following are estimates of moneys spent by the military installations or military personnel in the city of Cheyenne, Wyoming: Supplies, equipment, and contract services, $2,046,080; communication, $52,300; utilities, $1,350,900; travel, transportation, and storage of household goods, $333,500; education, $1,530,325; medical services, $1,669,376; base exchange, $1,168,000; credit union, $269,700; contributions, $463,271; nonappropriated funds, $1,570,862; private vehicles, $1,668,862.

Of the 13,000 people making up the population of the Warren Air Force Base, 824 families lived on base and 1,215 families and individuals lived off base.

The community impact report for the Stanley R. Mickelsen Safeguard Complex on the Grand Forks, North Dakota area is a much older report, dating back to 1970 with an update published in 1971. This Safeguard Assistance Command was actually located at Nekoma, North Dakota, which is in northeastern North Dakota, approximately 90 miles from Grand Forks, North Dakota. (This safeguard system has since been dismantled). Another impact report which covers basically the same area of northeastern North Dakota is the one sent to you in the information packet entitled "The Impact of the Safeguard Antiballistic Missile System Construction on Northeastern North Dakota." The report was prepared by the Department of Agricultural Economics, Fargo, North Dakota. This safeguard antiballistic missile system was located at Langdon, North Dakota, approximately nine miles north of Nekoma, North Dakota.

The adequacy and/or relevancy of the original community impact report for Nekoma is of questionable value because:

1. The impact report was completely projective rather than actual.

2. Information is available to indicate that these projections never actually did take place in the few years that the complex was in existence.

Please keep these reservations in the back of your mind when reading the conclusions and summaries of this report.

The Nekoma community impact report made the following conclusions:

1. The current population in the northeastern North Dakota-northwestern Minnesota impact area is presently 8,676 people. Population increases or temporary employees are expected to be 4,567 and permanent employees, 2,200 people.

2. It was concluded that available housing was extremely short to accommodate the estimated population increase. Permanent housing would be provided for approximately 2,200 people. Twenty-five to 30 percent of the additional people will furnish their own housing in the form of

trailers, campers, etc., leaving an outstanding temporary housing requirement for approximately 4,500 people. In other words, permanent-type conventional housing will be provided for the permanent population but not provided nor available for the temporary workers.

3. School student enrollment fluctuates from 1,500 additional students to 2,500 additional students at a peak of construction. To accommodate these projected increases in school enrollments, increased plant facilities are required for an estimated 400 additional students in the 1971-72 and 1972-73 school years. Further expansion for another 550 students was required by the 1973-74 school year. (As mentioned before, however, there are figures available indicating this expansion capacity was never needed or reached). Study projections for this impact report did not go beyond fiscal school year 1975-76.

4. The utilities, except for the city of Langdon in the impact area, did have adequate capacity in their present systems to accommodate the estimated population increases, both permanent and temporary.

5. It was estimated that police and fire protection would have to be expanded in approximately half of the affected communities.

6. Existing hospital facilities in the area were capable of supporting the projected population increases. However, staffing would have to be greatly increased to cover the projected population increases within the area.

7. Public expenditures for school facilities were estimated at $3 million.

8. Private investments were estimated at $16 million. This investment was due mainly to the construction of permanent housing accommodations for the population increase.

9. The average annual payroll for the Safeguard System Command was estimated at $27 million with secondary employment average annual payroll projected at $19 million.

Remember, this base has been completely dismantled and there are figures which tend to disprove the impact was this extensive. A 1971 update resulted in a substantial downward revision (which has held to be quite accurate).

In summary, the Langdon report (which covered report mailed out) is based on actual figures while this impact report for Nekoma was completely projective. It is suggested you place much more value on the ABM report mailed to each of you or the Warren Base report if any analysis, conclusions, or parallels are to be drawn to coal development.

We have to be careful not to compare unlike items. A federally financial installation and a privately owned business are two very different entities.

RESOLUTION OF THE
COMMON DATA ELEMENT AND INFORMATION EXCHANGE TASK FORCE
TO ALL FORT UNION REGIONAL TASK FORCES

WHEREAS, part of the charge of the Common Data Element and Information Exchange Task Force is to encourage development and compilation of a common data element dictionary; and

WHEREAS, task force discussion at its meeting of June 9, 1976, indicated the need for such a definition of terms; and

WHEREAS, the task force must initially define what a common data element dictionary should contain; and

WHEREAS, it was the general concensus of the task force that the dictionary not be a definition of terms, but an explanation of base data that is used in doing impact statements, energy demand studies, population projections, etc.

BE IT RESOLVED, that inasmuch as each task force possesses expertise in its own area, the Common Data Element and Information Exchange Task Force recommends that each task force develop its own definitions for their particular area of study and forward them to the Common Data Element and Information Exchange Task Force as soon as possible after the next meeting of the other task forces.

APPENDIX "O"

FEDERAL ENERGY ADMINISTRATION
REGION VIII
1075 S. Yukon
P. O. Box 26247
Bejmar Branch
LAKEWOOD, COLO. 80226

STATE ENERGY CONSERVATION PLANS

INTRODUCTION

The Energy Policy and Conservation Act (PL 94-163) was signed into law on December 22, 1975, and includes a number of provisions of interest to those of us concerned with public policy strategies for energy.

The Act itself is quite lengthy and deals with a wide range of issues from specifying certain emergency authorities, to mandating improved motor vehicle efficiency. The part of the Act that has probably received the most media coverage has been the part dealing with the pricing of petroleum products.

Without discussing all of the information contained in the Act we would like to draw your attention to Part C of Title III of the Energy Policy and Conservation Act entitled "State Energy Conservation Programs". This part of the Act authorizes the provision of Federal financial assistance for the development, implementation, and modification of State energy conservation plans. Although the State's participation in the program is purely voluntary, once the State chooses to participate it must meet certain mandatory requirements.

Part 1, of Title III of the Energy Policy and Conservation Act requires that the Federal Energy Administration (FEA) establish procedures and guidelines for the development and implementation of comprehensive energy conservation programs and practices.

FEA is to provide overall coordination, technical assistance, and financial support for specific State initiatives in energy conservation.

State Energy Conservation Plans

On January 29, 1976, FEA published proposed guidelines for the preparation of a State energy conservation feasibility report in the Federal Register. Final guidelines were issued on February 20, 1976, (10 CPR Part 420).

The Governor of each Region VIII State has submitted a feasibility report. These reports all included a positive assessment of the feasibility of establishing a State energy conservation plan with a goal of a reduction of five percent or more in total State projected energy comsumption in 1980.

On June 10, 1976, the FEA issued proposed guidelines for the development, implementation, modification, and funding of State energy conservation plans. These guidelines pertain to those measures which must be included in State plans. A 30-day comment period followed this publication which included a public hearing in Denver on June 28, 1976. Fourteen individuals provided testimony entering their comments for consideration. Another draft of these guidelines is being completed. This will be, or has recently been, provided to each State for further comment. We presently anticipate publication of these guidelines in late September or early October.

Each participating State will be invited to develop its State Energy Conservation Plan during the five months following the date the program guidelines become final. The plan report, which is due five months after final guidelines are available must contain:

(1) A State energy conservation plan designed to result in progress toward, and achievement of, the State energy conservation goal; and

(2) A detailed description of the requirements of the plan. This description must include the cost of implementation and the estimated energy savings for each of the conservation categories included in the State plan.

To be eligible for Federal assistance, each State energy conservation plan must include:

(1) Mandatory lighting efficiency standards for non-Federal public buildings ("public buildings" is defined here as any building, including a commercial building, which is open to the public during normal business hours);

(2) Programs to promote the use of carpools, vanpools, and public transportation;

(3) Mandatory energy efficiency standards and policies to govern State procurement;

(4) Mandatory thermal efficiency standards and insulation requirements for new and renovated non-Federal buildings; and

(5) A traffic regulation permitting, to the maximum extent feasible, right turn on red after stopping.

Each proposed State plan may also include:

(1) Restrictions on the hours of operation of public buildings ("public buildings" as defined above);

(2) Restrictions on the use of decorative or non-essential lighting;

(3) Transportation controls such as plans, disincentives, and requirements to reduce energy consumption in transportation (other than rationing);

(4) Public education programs to promote energy conservation; and

(5) Any other appropriate programs to conserve and to improve efficiency in the use of energy.

Federal Assistance to States

FEA will provide the States with information and technical assistance, including model State laws and regulations relating to energy conservation, subject to the availability to personnel and funds. Assistance will also be provided to the development, implementation, or modification of a plan submitted by a State under the prescribed guidelines. Federal financial assistance may be granted by FEA for the development, implementation, or modification of a State energy conservation plan which has been submitted and approved. In determining whether or not to grant approval to a State plan, FEA will take into account the impact of local, economic, climatic, geographic, and other unique conditions and requirments of a State.

In determining the amount of Federal financial assistance to be provided to a State, FEA will consider factors such as the contribution to energy conservation which can be expected, the number of people affected by the plan, and the consistency of the State plan with the intentions of this Act. Although it is expected that all approved plans will receive financial assistance, FEA will attempt to target the allocation of funds among States to achieve the greatest aggregate savings in energy affecting the greatest number of people.

Appropriations of $50 million are authorized for the fiscal year of enactment and for two subsequent fiscal years. The EY 76 appropriation for this program, however, is $5 million, to be used for the purpose of developing State plans in the form of planning grants. It is being allocated to the Region VIII States as follows:

State	Amount
Colorado	$ 73,230
Montana	53,100
North Dakota	52,150
South Dakota	52,678
Utah	58,215
Wyoming	48,784

Energy Conservation Goals

At the earliest practicable date, FEA is to determine an energy conservation goal for 1980 for each State, and may also set interim goals. Such goals must consist of the maximum reduction in energy consumption as a result of the implementation of the energy plan, and must also be consistent with technological feasibility, financial resources, and economic objectives.

In setting energy conservation goals for each State, FEA will identify the assumptions used and will take into account population trends, economic growth, and the effects of national energy conservation programs.

REGIONAL RESPONSIBILITES

The FEA regional office will be the primary liaison between FEA and the States. The staff of this office has received the Feasibility Reports and Applications for Financial Assistance. The region is responsible for evaluation and approval of the Feasibility Reports and Applications for Financial Assistance. Once the reports and applications have been accepted and funds allocated, the Regional Administrator will announce the awards and monitor each State's progress in preparing the energy conservation plan. At this time, the Colorado Notice of Grant Award has been issued. The applications from the other States are currently being reviewed and we intend to issue additional Notices of Grant Awards to other States very soon.

APPENDIX "P"
Prepared by
Project Coordinato

Minutes

# of the

FORT UNION REGIONAL TASK FORCE ON SOCIAL AND ECONOMIC IMPACT

Meeting of Friday, May 21, 1976
Gold Room, State Capitol
Bismarck, North Dakota

The meeting was called to order at 9:00 a.m. by the proxy moderator, Senator Robert Melland, North Dakota. Roll was called and the following task force members were present:

South Dakota Senator Harold D. Schreier
South Dakota Representative Loila Hunking
South Dakota Representative Harold Sieh
Mr. Charles E. Pourier, substituting for Ms. Rochelle, Smith, South Dakota Office of Indian Affairs
Mr. Larry Finnerty, South Dakota VI Planning District
Montana Representative Betty L. Babcock
North Dakota Senator Robert Melland, substituting for Senator David E. Nething
North Dakota Representative Charles Fleming
Dr. Mark Henry, Economics Department, University of North Dakota
Mr. Ralph Dewing, N.D. Coal Impact Office
Wyoming Representative Dan Kinnaman

Others present:

Mr. John A. Graham, Executive Director, N.D. Legislative Council
Sheila Miedema, Coordinator, Fort Union Regional Task Forces
Mr. Boe, American Natural Gas
Dr. Jaeger, N.D. Environmental Protection Agency (EPA)
Mr. Neal F. Jacquot, South Dakota VI Planning District

Task Force Members absent:

Senators Allan C. Kostad, S. A. Olson, Representative Dorothy Bradley, Mr. Ted Clack; Montana
Mr. James Henry, North Dakota
Senator John Turner, Dr. Burt Flafter, Mr. Michael Reese, Mr. Larry Day; Wyoming

Senator Melland welcomed the members and gave a brief explanation of the task force, indicating the group was being funded by a National Science Foundation continuing grant, which had grown out of the Coal Conference held in Bismarck, North Dakota, on October 13-15, 1976. Senator Melland, with the approval of the committee, established the following procedural rules:

1. Proxies were allowed in voting when previously cleared through the project coordinator.

2. A quorum was established at 11 members.

3. Robert's Rules of Order will be followed.

Senator Melland introduced Ms. Sheila Miedema, Project Coordinator, who explained administrative details of travel expenses and travel vouchers. She then reviewed the final report of the coordinate task force from the Coal Conference held last fall.

Senator Melland asked Mr. John Graham, North Dakota Legislative Council Director, for an update on the task forces. Mr. Graham explained that seven task forces were organized and set up--the original six plus Common Data Element and Information Exchange Task Force. He explained this was the third organizational meeting to be held and that the initial organizational meetings were held in the lead state (Montana in the case of the first two task forces). He explained that task forces are receiving staff assistance from the lead states. Ms. Miedema then informed the task force of the remaining meeting dates that were set for other task forces.

The first order of business was to defer the election of a chairman until future meetings when more of the membership were in attendance. Also, it was delayed because of the absence of Senator David Nething, who was originally asked to serve as moderator.

At this point, Mr. Graham explained the range of possibilities open to them as far as final reports and outcome. The task force can recommend:

1. The legislatures of the four states pass appropriate legislation.

2. The executive branch in the four states take appropriate regulatory action.

3. Research and give suggestions on how to fund it.

4. Its own continuation in the future.

Mr. Graham also noted that regional sources of information would be utilized by this task force.

To begin discussion, Senator Melland called on Mr. Ralph Dewing, N.D. Coal Impact Office, to explain the coal severance tax and its use in impacted areas. Representatives from the other states were called on to explain in brief where their states stood with regard to social and economic impact concerns. The committee discussed the following areas of concern and importance:

1. Interstate problems, i.e., development in one state affecting and impacting a neighboring state such as commuters living in one state and working in another, or pollution--either air, water, or land--which runs through or blows through adjoining states.

2. Interstate problems related to transportation, i.e., railroad transportation of coal increasing railway traffic in adjoining states, possible pipelines running through states other than where coal was mined, and transmission lines crossing other states.

3. Population changes, i.e., numbers of people, type of people, and characteristics of incoming and outgoing population.

4. Preplanning--especially cooperative interstate preplanning.

5. Not only increase in employment and population at the outset of development, but also the loss of employment and population when development ends.

6. Nuclear development and rumors related to the placement of nuclear demonstration plants in the Fort Union Coal Formation states.

7. Front-end financing of social and economic costs.

8. Interest in having federal contact relating to social and economic impact. The committee felt the federal government should help out in impacted areas but because of the slow movement of federal bureaucracy, the states had to initiate programs also.

9. A convenient vehicle for exchanging information.

10. Defining the process of permits in each of the states that the industries have to follow.

11. Quality of life indexes and the committee indicated little work had been done in this field and that the concept was not very well developed.

12. Interest in monitoring status quo today rather than relying on the projective scenarios that are so common.

13. Suggested a short, concise information booklet be printed on the four states on how each is handling development as it relates to social and economic impact.

14. Increase in income level which the group felt should increase as development increased, and that the increase should not be eaten up or spent solely on necessities.

15. Realization that all acts of the task forces must be supported with input from the Indian representatives and that all goals, agreement, and regulation would have to meet with Indian standards, i.e., one standard for everyone.

16. Discussed resolution from the Taxation Task Force on the proper amount of impact moneys needed.

The following are actions the committee took and areas they will pursue at their next meeting:

1. To further look into the resolution of the Taxation of Energy Resources Task Force and to define impact in order to answer the question of the taxation group. It was discussed that possibly enough tax is generated to cover impact, but the allocation may not be as acceptable as could be. Also, that tax levels were possibly sufficient but the concern was that timing was difficult because front-end financing is expensive to cover.

2. To look at energy impact rather than just coal impact.

3. To look into federal assistance and suggest that the allocation from the federal government be made more flexible.

4. IT WAS MOVED BY SENATOR MELLAND, SECONDED BY REPRESENTATIVE KINNAMAN, AND CARRIED THAT THE TASK FORCE DISCUSS TAXATION OF ENERGY DEVELOPMENT RATHER THAN JUST COAL DEVELOPMENT.

5. A high priority of the task force is interstate information exchange and federal input. IT WAS MOVED BY SENATOR SCHREIER, SECONDED BY REPRESENTATIVE SIEH, AND CARRIED TO ENCOURAGE, THROUGH LEGISLATIVE ACTION, THAT A CENTRAL POINT BE SET UP (ALLOWING EACH STATE TO DECIDE WHICH DEPARTMENT WOULD SERVE AS A CENTRAL POINT) FOR THE PURPOSE OF EXCHANGING REGIONAL INFORMATION ON ENERGY DEVELOPMENT, WITH THE PROGRAM TO BE FUNCTIONAL IN SUMMER 1977.

6. IT WAS MOVED BY REPRESENTATIVE HUNKING, SECONDED BY REPRESENTATIVE KINNAMAN, AND CARRIED TO REQUEST THE PROJECT COORDINATOR TO GATHER INFORMATION RELATIVE TO NUCLEAR ENERGY DEVELOPMENT AND IMPACT AS IT EFFECTS THE FOUR-STATE AREA.

7. To suggest the state research and compile the list of permits required by industries. IT WAS MOVED BY MR. DEWING, SECONDED BY SENATOR SCHREIER, AND CARRIED THAT PROCEDURES REQUIRED BY THE FEDERAL GOVERNMENT; STATE GOVERNMENT; LOCAL, AND TRIBAL GOVERNMENTS REGARDING PERMITS FOR INDUSTRIES BE RESEARCHED AND COMPILED.

8. IT WAS MOVED BY REPRESENTATIVE FLEMING, SECONDED BY REPRESENTATIVE HUNKING, AND CARRIED TO REQUEST THE PROJECT COORDINATOR TO COLLECT INFORMATION FROM MILITARY INSTALLATIONS ON IMPACTED AREAS IN THE FOUR STATES.

9. IT WAS MOVED BY REPRESENTATIVE BABCOCK, SECONDED BY REPRESENTATIVE FLEMING, AND CARRIED TO REQUEST THE COMMON DATA ELEMENT AND INFORMATION EXCHANGE TASK FORCE TO COMPILE A BROCHURE ON ENERGY DEVELOPMENT IN THE FOUR STATES, I.E., WHERE THE FOUR STATES ARE RIGHT NOW.

10. IT WAS MOVED BY REPRESENTATIVE KINNAMAN, SECONDED BY SENATOR SCHREIER, AND CARRIED THAT THE FEDERAL GOVERNMENT OR ITS RESPECTIVE AGENCIES, SUCH AS THE FEDERAL ENERGY ADMINISTRATION OR DEPARTMENT OF THE INTERIOR BE QUESTIONED WITH REGARD TO SOCIAL AND ECONOMIC IMPACT AND, MORE SPECIFICALLY, THE EFFECT FEDERAL COAL LEASES WILL HAVE UPON THE FOUR STATES.

The task force agreed to meet approximately July 20 in Helena, Montana, to elect a chairman and cover other agenda items.

IT WAS MOVED BY SENATOR SCHREIER, SECONDED BY REPRESENTATIVE BABCOCK, AND CARRIED THAT THE MEETING BE ADJOURNED. The meeting was adjourned at 3:30 p.m.

APPENDIX "Q"
Prepared by
Project Coordinator

Minutes

of the

FORT UNION REGIONAL TASK FORCE ON SOCIAL AND ECONOMIC IMPACT

Meeting of Monday, August 23, 1976
Homesteader Room, Ramada Inn
Billings, Montana

The meeting was called to order at 9:00 a.m. by the moderator, Senator David Nething, North Dakota. Roll was called and the following task force members were present:

South Dakota Senator John Riedy, substituting for Senator Harold D. Schreier
South Dakota Representative Harold Sieh
South Dakota Representative Pat Kenner, substituting for Representative Loila Hunking
Mr. Larry Finnerty, South Dakota VI Planning District
Montana Senator S. A. Olson
North Dakota Senator David E. Nething
Mr. James Henry, North Dakota
Dr. Mark Henry, Economics Department, University of North Dakota
Mr. Ralph Dewing, North Dakota Coal Impact Office

Others present:

Sheila Miedema, Project Coordinator, Fort Union Regional Task Forces
Mr. Allen Bond, Mr. Jeff White, Mid-Yellowstone Areawide Planning Organization, Billings, Montana
Mr. Jack Hallowell, Montana State-Federal Energy Administration
Dr. Polly Garrett, Region VIII, Federal Energy Administration, Denver, Colorado
Mr. Don Rapp, Western Governors' Regional Energy Policy Office, Denver, Colorado
Mr. Neal Jacquot, Sixth Planning District, South Dakota
Mr. Doug Meyers, Indian Lignite Manpower Program, United Tribes Educational Technical Center, Bismarck, North Dakota
Mr. K. K. Kittler, Legislative Representative, Minnkota Power Cooperative, Inc., Grand Forks, North Dakota

Task Force Members absent:

Ms. Rochelle Smith, South Dakota Office of Indian Affairs
Senator Allen C. Kolstad, Representatives Dorothy Bradley, Betty L. Babcock, Mr. Ted Clack; Montana
Representative Charles Fleming, North Dakota
Senator John Turner, Representative Dan Kinnaman, Dr. Burt Flafter, Mr. Michael Reese, Mr. Larry Day; Wyoming

Moderator Nething introduced himself, the task force members, and guests. Because a quorum was not present, voting on a chairman was postponed until the next meeting. Representative Kenner pointed out that the date of the Coal Conference in North Dakota should have been 1975, rather than 1976, in the minutes previously mailed. REPRESENTATIVE SIEH MOVED TO APPROVE THE MINUTES AS CORRECTED, SECONDED BY REPRESENTATIVE KENNER. MOTION CARRIED.

Senator Nething then introduced Ms. Miedema, Project Coordinator, to give special reports on several areas previously requested by the task force.

The first report pertained to the Taxation of Energy Resources Task Force resolution asking the Social and Economic Impact Task Force to evaluate the sufficiency of severance taxes to cover social and economic impact. The project coordinator reported that the Taxation Task Force accepted the report of the Social and Economic Impact Task Force as complete and that no further studies would have to be done.

The project coordinator then pointed out to the task force members that the two studies previously sent out to them entitled "A Fiscal Impact Model for Rural Industrialization" and "Fiscal Impact of a New Industry in a Rural Area: A Coal Gasification Plant in Western North Dakota" both prepared by the North Dakota State University Agricultural Economics Department were studies done relative to taxation levels and their sufficiency regarding social and economic impact. Both these studies reached the same conclusion the task force had that severance taxes are sufficient to cover social and economic impact, however, problems may arise with distribution of the impact moneys and timing of the impact moneys.

The project coordinator suggested that if any other state had reports addressing this question to forward these reports for duplication and distribution to the task force members.

The project coordinator read a letter from Mr. Marvin Singer, Energy Research and Development Administration, relative to placement of nuclear facilities in the Fort Union region. Mr. Singer indicated that ERDA now plans no nuclear test facilities in the region, however, commercial nuclear reactors are built at the discretion of the nuclear industry and ERDA has no control over the siting of these facilities.

Ms. Miedema reported on the proposed energy information exchange system being set up by the Common Data Element and Information Exchange Task Force in response to requests for information exchange between the four states. Specifically, the Common

Data Element and Information Exchange Task Force was asked by the Social and Economic Impact Task Force to compile an energy development pamphlet.

The project coordinator informed the members of the task force that the Common Data Element and Information Exchange Task Force had organized and will have an energy information exchange system in operation in each state prior to the beginning of the legislative sessions in January. Ms. Miedema explained that the legislative service offices in the four states will coordinate information exchange relative to energy development and progress during the legislative sessions, i.e., new bills introduced, passed, or defeated, etc.

The project coordinator then presented two reports requested by the task force at their original meeting. The first report was on military installations located within the four states and their social and economic impact upon surrounding communities. The second dealt with impacts on surrounding communities when development ended or tapered off.

Ms. Miedema then reviewed the resolution from the Common Data Element and Information Exchange Task Force relative to common data elements.

Moderator Nething explained to the task force that he felt this meeting was more of an educational session for the members of the task force as opposed to a hard-nosed decision-making meeting. This meeting's main course of action would be to develop information sources for the task force on social and economic impacts.

Moderator Nething introduced Dr. Polly Garrett of the Federal Energy Administration, Region VIII, Denver, Colorado. Dr. Garrett has been asked to address many subjects for the task force.

Dr. Garrett outlined the organization of FEA in Region VIII. She explained that FEA Region VIII covered six states, each of the states having an FEA person located within their boundaries. (Mr. Jack Hallowell is the Montana regional person.) Dr. Garrett then introduced Mr. Hallowell who reported on the state conservation plans which were initiated by the federal government under the Energy Policy and Conservation Act of 1976. Mr. Hallowell mentioned that all four states are participants and that under this Act, FEA provides overall coordination, financial support, and technical support to help the states set up or improve energy conservation within their borders.

Dr. Garrett continued her discussion on the various questions addressed to the Federal Energy Administration. Dr. Garrett explained that the Region VIII administration was headed by Col. Dudley Faver. Within the regional administration, there is a socioeconomic impact committee which Dr. Garrett heads. Region VIII - FEA published a handbook of what happened in the fiscal year 1975 relative to financial support given to impacted communities. (A copy of this fiscal report was sent to each committee member prior to the meeting.) Also, Dr. Garrett reported that FEA was involved in gathering demographic information on these impacted communities. The Federal Regional Council, Denver, and the Region VIII FEA office have been working together on this demographic information. It is expected to be published within the next few months. At that time, the project coordinator will acquire copies for each task force member.

Dr. Garrett handed out a copy of the survey which was sent originally to the governors' offices of the states in order to gather demographic information on impacted communities. She also distributed a list of the 179 communities which were determined as impacted and also maps of impacted areas in the four states. (Copies of the above-mentioned handouts are available through the project coordinator.)

Dr. Garrett continued her presentation by discussing the question of whether or not nuclear development was coming to this region. Her answer was that at the present time there were no plans she was aware of and that the Federal Energy Administration had no current information on nuclear development in this area.

In discussing how interstate transportation problems are related to coal development, Dr. Garrett mentioned that within a few years there will be a 400 percent increase in coal production (between now and 1985). Most of this coal will have to be transported by waterways, slurry pipelines, or railroads. Dr. Garrett mentioned a study done by the Western Governors' Regional Energy Policy Office on a coal slurry pipeline alternative (if interested in this study, please contact project coordinator).

Dr. Garrett suggested that coal will be moved by the most practical way, but indicated that at the present time there are problems between slurry pipelines and railroads. One problem is that railroads are not allowing slurry pipelines to cross under land owned by railroads or utilized by railroad tracks. The second problem with slurry pipelines is that of water availability. Dr. Garrett felt that these questions will have to be addressed by both the state and federal governments. Dr. Garrett indicated that at the present time there are 200-unit trains currently operating in this region. The present tracks are not capable of maintaining that type of load. (A unit train is four to five diesel engines with 100 cars approximately one and one-fourth miles long.) Dr. Garrett mentioned there will be much community impact because of transportation of coal.

Mr. Ralph Dewing said this was a whole new concern with regard to social and economic impact. He indicated that no tax goes to the state the coal trains or other transporting vehicles have to cross, for example, Montana and Wyoming coal going through North and South Dakota. Mr. Dewing suggested that the federal government will have to face up to this problem.

In discussing the effects of federal coal leasing upon the four states, Dr. Garrett mentioned that it was a good thing the public had adequate time to comment on federal leases. She added that leasing coal only when it is needed will also be valuable in reducing the impacts on the states.

In responding to a question on the effect of environmental impact statement requirements upon the four states, Dr. Garrett felt that under NEPA (National Environmental Policy Act) the states have more control over such EIS procedures. The degree of effect will vary by state according to the state agency responsible for preparing the EIS. Dr. Garrett noted her concern that all EIS reviewers should have available to them reports of other EIS's completed for adjoining regions in order to look at the total picture of impact rather than just site specific impact.

The Federal Energy Administration was asked to address the possibility of more mineral royalty money being returned to the state of origin. This concern has already been addressed by Congress overriding the presidential veto to increase the mineral royalty moneys returned to the state of origin from 37 percent to 50 percent.

Mr. Jacquot questioned Dr. Garrett regarding coal transportation and whether or not generation plants will be built within our region. Dr. Garrett answered that there is a need for energy and, if the transportation problems such as slurry pipelines cannot be solved or transportation cost is too high, then generation plants will definitely have to be built within this region.

Dr. Henry commented that regulations of environmental quality may be such that plants will have to be located in our area because we are the part of the country with clean air.

Mr. Finnerty asked whether or not this region was being considered an area for nuclear waste byproducts. Dr. Garrett responded that she has not heard of any such plans. She suggested contacting the Energy Research and Development Administration and asking for their waste management statement. Senator Riedy, South Dakota, said that he had read this ERDA report and that it did not foresee much nuclear development, but there was a possibility of waste dumping if there was no other way to get rid of the waste. He did not feel that it was a very serious proposal however.

At this time Dr. Garrett passed out a paper presented at a forum/workshop entitled "Impact of Technology on Energy Management" sponsored by the Denver Federal Executive Board (Energy and

Environment Committee) and the Federal Energy Administration. (Copies of the keynote address presented by Dr. Franklin J. Agardy are available upon request from the project coordinator.)

The next presentation was by Mr. Don Rapp of the Western Governors' Regional Energy Policy Office on a socioeconomic report prepared by him for WGREPO. (Copies of this report will be mailed out to all those not in attendance at the past meeting.) This report provides a set of recommendations and actions that could be taken to alleviate social and economic impacts. Mr. Rapp includes specific recommendations to the governors and to the legislators of each state. The list of recommendations is very complete and should be useful for legislators during the upcoming legislative sessions.

Specific recommendations include:

1. Creating a technical assistance team to help local areas see their way through federal applications;

2. Denominating a central focal point for applying for impact assistance, rather than going out "in the dark" to many federal agencies; and

3. Providing special assistance to lay people in impacted communities to provide "growth management" training, especially for city officials.

The report also gives a comparative analysis of the programs of six states, North Dakota, Montana, and Wyoming included, in the areas of housing, education, planning, health, and plant siting.

This special report to the governors prepared by Mr. Don Rapp is Part I of a comparative analysis of state actions. Parts II and III are planned for the future.

The task force agreed that this would be a very useful tool in addressing social and economic impact questions during the upcoming legislative session. They requested that it be reviewed in detail.

The task force recessed for lunch at 11:50 a.m. and reconvened at 1:05 p.m.

At this time Dr. Garrett addressed the question of what type of front-end financing is available for preplanning and impact in the Fort Union region. Dr. Garrett had previously sent to each task force member a copy of the FEA Fiscal Year 1975 Finance Assistance Record. Also presented to the task force at this time was a report prepared by HUD and FEA on federal assistance available entitled "Rapid Growth from Energy Projects-Ideas for State and Local Action-A Program Guide." Another source of information is a report done by a Utah group that identified what funds could be requested from the federal government. (A copy of this report is available upon request from the project coordinator.)

(Also available upon request from the project coordinator are excerpts from a paper prepared by Mr. Keith D. Moore entitled "Financing Options for Communities Near Large Energy Developments.")

In response to a question on whether or not the federal government will respect state's rights and state laws in developing coal and energy resources, Dr. Garrett said the past record has shown what will happen and to what extent the past will govern the future, no one knows. She felt there should be an all out effort by federal agencies to build stronger communications with the states. She also feels the states should examine and assess their present positions so as to be in a better posture to talk with federal agencies.

At this time Dr. Garrett handed out a copy of the bibliography for the report she gave at the forum/workshop on "Impact of Technology of Social Change" and a sample of the planning sheet matrix used for inventorying recommendations for legislation or research required in the energy development area. (Copies of these two items are available upon request through the project coordinator.)

Mr. Doug Meyers of the Indian Lignite Manpower Program from United Tribes Educational Technical Center, Bismarck, North Dakota, made a presentation relative to his program. The Indian population and leaders are interested in obtaining education and experience in lignite industries. More detailed reports will be made available to the task force upon completion of compilations. Mr. Meyers mentioned his ideas for a two-day session open to the public, including representatives from coal companies, unions, education, employment assistance, state officers, utilities, etc., to inform the Indians about opportunities, hiring practices, etc., in the lignite industry.

Information was handed out by each of the four states regarding their permit processes. Permit processes within the four states are lengthy and detailed. At the past meeting of the Task Force on Social and Economic Impact, it was requested that a list of these permits be compiled. (Copies of lists of permits required can be obtained upon request from the project coordinator.)

It was suggested that if another meeting was to be held, that it should be sometime during the week of November 28, in Rapid

City, South Dakota. If there are any ideas as to topics for the next meeting agenda, please contact the project coordinator.

Because no quorum was present, the task force members present agreed to adjourn.

Sheila Miedema
Project Coordinator
Fort Union Regional Task Forces

Final Report
# of the
FORT UNION REGIONAL TASK FORCE
ON
TAXATION OF ENERGY RESOURCES

Compiled by Project Coordinator
and
Edited by Task Force Members

December 1976

Project Coordinator's

Summary Report

The Taxation of Energy Resources Task Force discussed in detail the respective states' severance tax and mineral tax laws. Tax policy varied greatly from state to state.

Information researched related mainly to comparisons of the laws and comparisons of revenue generated. Much input came from publications of the Western Governors' Regional Energy Policy Office.

There are still unanswered or insoluble questions relating to taxation of energy resources which will be monitored by the Project Coordinator.

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FINAL REPORT

Introduction

At the 1975 Fort Union Coal Conference held in North Dakota Senator Robert Stroup, North Dakota; Senator Curtis Jones, South Dakota; Representative James Mockler, Wyoming; and Senator Matt Himsl, Montana; served on the panel on taxation of energy resources. Each presented their respective states taxation philosophy and explained in general their present coal taxation regulations. From this original conference it was evident that the four states had widely varying taxation philosophies as well as widely varying coal severance tax (mineral tax) laws. The full text of these speeches are reprinted in the Fort Union Coal Conference proceedings. (If interested, please contact your legislative service agency for copies of these speeches).

Assignment

The Coal Conference panel on taxation of energy resources recommended that a continuing four-state task force on coal taxation and related development be created and that the exchange of information among legislators be emphasized. The task force also recommended that, subject to available staff time, each of the four states inquire into the various coal industry taxes so that comparisons could be made between the states and the effects of such taxes on consumers and industry could be evaluated.

Areas of concern discussed by the task force at the Coal Conference included the following:

1. Should the purposes of taxation be (a) sufficient only to meet the present governmental costs or (b) also sufficient to provide resources to the state after the depletion of a natural resource?

2. Coal taxes should not be relied upon as a long-term source of state funding.

3. Tax policy should allow for unanticipated, unfavorable impacts.

4. States should not develop tax policy through fear of losing resource development.

5. The impact of coal taxes on the ultimate consumer.

6. States need adequate information from the coal industry upon which to base tax policy.

7. If state taxation levels are exceedingly high, the federal government may attempt to preempt taxation of coal.

8. Taxes should not be punitive so as to drive out industry.

9. Feasibility of a regional approach to coal taxation.

10. The difficulty of comparing tax data from the four states.

11. Should severance taxes be levied on a "tonnage" or percentage basis?

12. Improved technology for sulfur removal will significantly change the economic position of western coal.

13. The effect on equalization programs for schools of ad valorem taxes on the coal industry.

14. Taxation of severed mineral rights and minerals in place was discussed.

15. State taxation of water.

16. Effects of state coal taxes on oil imports and the economy of the nation.

The concerns expressed by the Coal Conference panel were again considered by the present task force.

Background

The Taxation of Energy Resources Task Force held two meetings, the first in Billings, Montana, on Tuesday, May 4, 1976. The second meeting was held in Cheyenne, Wyoming, on Wednesday, June 23, 1976. Montana was chosen as the "lead" state for the Taxation of Energy Resources Task Force. Senator Matt Himsl of Montana served as chairman. Senator Kenneth Jones, South Dakota, served as vice chairman. Ms. Eleanor Eck, Montana Legislative Council, served as permanent secretary.

Information Researched

The task force requested information on:

1. Total revenue or general fund receipts for fiscal year 1976 (estimate); net receipts from coal extraction tax for fiscal year 1976 (estimate); and coal extraction tax as percent of general fund revenue for fiscal year 1976 (estimate).

2. The number of applications for coal gasification plants in each state.

3. The number of applications for electrical generating plants in each state.

4. The total number of applications to mine coal in each state.

5. How coal is valued for taxation purposes in each state.

6. Impact of taxes on coal production.

7. Energy companies that have applied for permits of any kind and then have withdrawn the application.

8. Projected coal extraction through 1985.

The information received in response to the above requests is summarized in Appendix "A", page 396.

Another area of concern discussed by the task force was Indian coal development and the taxation of coal on Indian lands, i.e., who has jurisdiction over taxation of Indian coal. Ms. Phyllis Howard, North Dakota Indian representative on the Taxation Task Force, looked into the question of taxation of coal resources on Indian land. (See Appendix "B", page 398, for her analysis.) The final conclusion of the task force with regard to taxation on Indian coal was that the respective legislatures would find it useful to be continually up to date on the status of Indian coal taxation and therefore the project coordinator will monitor and keep task force members informed if reservation, state, or federal laws change with respect to taxation of Indian coal.

The Taxation of Energy Resources Task Force reviewed a special report to the Governor prepared by the Western Governors' Regional Energy Policy Office in Denver, Colorado, entitled "Taxation of Coal Mining: Review with Recommendations, January 1976." The report, prepared by Mr. Leonard D. Bronder, Resource Economist, contained summaries of each of the four states applicable tax laws which are attached as Appendix "C", page 399. In summary, the report reviews all taxes and other payments made to government by the coal- and energy-related industries.

The following additions or corrections should be made to this appendix:

1. In Montana's figures for allocation formulae from 1975 to 1979 the allocation to "coal area highway improvement" is 10 percent; and, for 1980 and afterwards, the "school equalization allotment" is 10 percent. (These two columns totaled 110 percent).

2. At the present time the coal severance tax in North Dakota is 54 cents per ton. The North Dakota severance tax is tied to the index of wholesale prices for all commodities. Since the enactment of the law the severance tax has increased from 50 cents to its present level of 54 cents per ton.

3. Wyoming has an additional six percent ad valorem tax which is not mentioned in the summary. Including all the various taxes levied in Wyoming the approximate total tax on coal is 11 percent.

4. In Montana, the license tax is levied on corporations only. Partnerships, joint ventures, etc., are not taxed as such.

Mr. Leonard Bronder, Resource Economist for the Western Governors' Regional Energy Policy Office, prepared another useful report entitled "Taxation of Surface and Underground Coal Mining in Western States." (See Appendix "D", page 408, for all pertinent graphs from that report.) This report summarizes extensive data on taxes collected relating to coal production. These summaries were useful in answering questions raised by the task force.

A third report prepared by Mr. Leonard Bronder was on coal resources in the Northern Great Plains area. This report is given in Appendix "E". Also included are the various scenarios of coal development which have been formulated for the Great Plains area by (a) the North Central Power Study, (b) the Northern Great Plains Resource Program, (c) NSF/RANN - Montana University, (d) ERDA - National Plan for Energy Research and Development Administration, and (e) U.S. Bureau of Mines: Energy Through the Year 2000 (revised). Also accompanying this report is a listing of the 1975 coal production figures, by mine and company, in the states of Montana, Wyoming, and North Dakota. (See Appendix "E", page 4

The Taxation of Energy Resources Task Force was also interested in monitoring all federal legislation which would affect taxation of energy resources in the four Fort Union states. The project coordinator is monitoring federal legislation and will inform the task force membership if any significant action occurs.

A prime task force concern was whether present tax levels are adequate to cover developmental impact costs. To resolve this question the Taxation Task Force sent a resolution to the Social and Economic Impact Task Force asking whether or not the taxes collected at the present time and at the present level are sufficient to meet governmental responsibilities with respect to development impact. (See Appendix "F", page 426, for a copy of the resolution.)

The Social and Economic Impact Task Force responded in the affirmative, but noted the main problem is with the timing of receipt and expenditure of revenues. In other words, moneys for impact are needed earlier than presently collected because the impact comes sooner than production (when the most taxes are being generated to cover impact). Also, taxes are sufficient, but allocation could be greatly improved. (See Appendix "G", page 427, for the Social and Economic Impact Task Force reply.)

The Common Data Element and Information Exchange Task Force requested that common data elements be defined by each of the six other Fort Union Regional Task Forces. (See Appendix "H", page 428, for a copy of this resolution.) In answer to the Common Data Element and Information Exchange Task Force request, the Taxation of Energy Resources Task Force sent copies of the four states' severance tax or mineral tax laws, in order for the Common Data Element Task Force to select common data elements appropriate and relative to taxation of energy resources. See Appendix "I", page 429, and "J", page 433, for task force meeting minutes of the first and second meeting respectively.

Recommendations

The Taxation of Energy Resources Task Force membership realized that the philosophies of the four states relative to taxation of coal resources are vastly different, but feel it necessary to have the project coordinator monitor changes in the laws in each of the four states, as well as any federal legislation which would change state policies. The task force voted to hold no further meetings, but requested the project coordinator to inform the membership and exchange information relative to the following current legislative problems: taxation of water, taxation of mineral rights, taxation of Indian coal, taxation policies as seen by industry people, and taxation changes possible with changes on the federal level, for instance, the black lung bill which would add a certain tax to the cost of coal to provide for health benefits for miners contracting black lung.

For additional copies of this final report or any information on special reports contained within this report contact the project coordinator.

APPENDIX "A"
Prepared by
Project
Coordinator

INFORMATION REQUESTED BY THE FORT UNION REGIONAL TASK FORCE
TAXATION OF ENERGY RESOURCES

DESCRIPTION	NORTH DAKOTA	SOUTH DAKOTA	MONTANA	WYOMING
General fund net receipts FY76 (estimate)	$234,000,000	$157,294,570	$485,000,000	$114,739,840
Net receipts from coal extraction tax FY76 (estimate)	5,869,841	- 0 -	58,900,000	3,297,630
From coal extraction tax as % of general FY76 fund revenue	2.5%	- 0 -	12.14%	2.9%
Number of applications for coal gasification plants	2 (one of which has been denied a water permit to date)	None	None	2 pending or on federal government loan guarantees
Number of applications for electrical generating plants	2 (under construction) and 2 (proposed)	1	1	3 plus one other possible site
Total number of applications to mine coal	32	None	Each mine must obtain a permit yearly. There are presently 7 mines	11

DESCRIPTION	NORTH DAKOTA	SOUTH DAKOTA	MONTANA	WYOMING
Tax value	Approximately 53¢ per ton at present (tied to price index). Flat rate at point of severance		Value means contract sales price. In practice, all values have been derived using actual sales prices	Determined by subtracting from the sales price any costs of benefication, transportation costs from point of first storage to destination and any state or federal royalties
Impact of taxes on coal production	May keep small firms from applying		Unable to document anything	
Companies applied then withdrawn	None	None	None	None
Projected coal extraction (million tons)				
FY77	11	0	34.22	50.4
" 78	13.5	0	39.22	72.0
" 79	13.5	0	39.62	88.2
" 80	13.5	0	42.82	104.9
" 81	18.5	0	Not available	106.4
" 82	21.1	0	" "	112.5
" 83	29.7	0	" "	113.9
" 84	29.7	0	" "	116.7
" 85	29.7	0	" "	117.7

APPENDIX "B"

Ft. Berthold College Center

P. O. Box 765
New Town, North Dakota 58763

TELEPHONE (701) 627-4341

July 27, 1976

Ms. Sheila Miedema
Project Coordinator
Fort Union Regional Task Forces
ND Legislative Council
State Capitol
Bismarck, North Dakota 58501

Dear Ms. Miedema:

I have been in contact with several Reservation Area Office at the Billings and Aberdeen Area. These 2 area offices take care of all the Indian Reservations in North Dakota, South Dakota, Montana and Wyoming.

Each of the reservations at this time do not have any active laws that refer to taxation of Coal Resources. However, 2 reservations, Northern Cheyenne and Crow Reservation in Montana may have passed some laws, however, they are in litigation with their resources, and so these laws are not effective right now.

Each Indian Tribe that has coal resources is seriously considering taxation laws, however, to date they have not been enacted.

I hope this satisfies the information that the Task Force requested.

If you have other questions, please don't hesitate to call me.

Sincerely,

Phyllis

Phyllis Howard
Director

PH/dmi

APPENDIX "C"
Prepared by
Western
Governor's
Regional Energy
Policy Office

MONTANA

A domestic coal corporation is subject to:

An annual Report fee of $5;

A License (Income) tax based on federal taxable income with adjustments at the rate of 6-3/4%.

A General Property tax with different types of taxable property assessed at varying ratios of full and true value. Rates are the aggregate of state and local rates variable according to location. Gross proceeds of underground mines are taxes at 33-1/3% and proceeds of strip mines are taxed at 45% of value. Machinery and equipment are assessed at depreciated value according to local levels of assessment. The base of the tax is the "contract sales price" of the coal which is defined to be the price of the coal extracted and prepared for shipment, f.o.b. the mine, excluding all production taxes due (including severance, ad valorem, and reclamation).

Severance Tax. The rates of the tax are as follows, whichever is higher on the "contract sales price."

Heating Quality (BTU per lb. of coal)	Surfacing Mining	Underground Mining
Under 7,000	12¢ or 20% of value	5¢ or 3% of value
7,000 to 8,000	22¢ or 30% of value	8¢ or 4% of value
8,000 to 9,000	34¢ or 30% of value	10¢ or 4% of value
over 9,000	40¢ or 30% of value	12¢ or 4% of value

An annual exclusion of 20,000 tons is provided.

A Mineral Mining (Resource Indemnity and Trust Account) tax levied upon the gross value of the mine's production. Tax liability is $25 plus one-half of one percent of the gross value if over $5,000.

Distribution of Severance Taxes

Taking all allocations made by the various bills into account, the formulas are as follows:

1975-1979	1980 and Afterwards
School equalization--10%	20%
Local impact & education trust--27½%	35%
Coal area highway improvement--20%	--
County where coal is mined--4%	3½%
Counties land planning--1%	--
Alternative Energy research--2½%	4%
Renewable resource development--2½%	2½%

Parks acquisition--2½%	5%
General Fund--40%	40%

Highway Improvement. This section establishes a four-year program, ending June 30, 1979, to reconstruct twelve segments of primary and secondary highways in a desginated area encompassing all or parts of Big Horn, Rosebud, and Treasure counties. The Department of Highways has estimated the work needed on these roads at $52 million dollars. The anticipated revenue to this account from the coal tax is between $15 million and $16 million over the four years, and federal matching funds from the U.S. Department of Transportation are expected to be available on a 74-26 basis. The roads in question lead to the four major strip mines in the state, and these roads have deteriorated under the heavy pressure associated with mine development. It is equitable to apply a part of the coal tax to reconstruct these roads, for just as the mines have brought about bad roads, the mines and their workers will benefit from good roads.

A domestic coal corporation is subject to:

An annual Report fee of $5;

Severance Tax:

1. Fifty cents per ton of two thousand pounds; and

2. For every three points increase in the index of wholesale prices for all commodities prepared by the United States Department of Labor, Bureau of Labor Statistics, the amount of the severance tax provided in subsection 1 shall be increased one cent per ton of two thousand pounds. For the purposes of this computation, a fractionsl point increase shall be disregarded if less than one-half point and treated as one full point if one-half point or more. The state tax commissioner shall determine such increases based upon increases in the wholesale price index from the level of such index as of January, 1975, to the level of such index as of the last month of the quarter immediately preceding the quarter for which any taxes are due.

An income tax based on federal taxable income, with adjustments, with the lowing graduated rates;

up to $3,000 of N.D. taxable income.....3%
$3,000 to $8,000..................$90 + 4% of excess over $3,000
$8,000 to $15,000................$290 + 5% of excess over $8,000
over $15,000.....................$640 + 6% of excess over $15,000

3. A business and corporation privilege tax on 1% of the net income. The first $2,000 of net income is exempt and the minimum tax is $20. A corporation who is required to file a state income tax return is also required to file a privilege tax return.

A General Property tax with taxable property assessed at 50% of its taxable ue except as to taxes levied to retire indebtedness, 100%. Levy rates are sum of state and local levies and vary according to location. See example ow for current practice.

Coal mining companies are subject to local property taxes on buildings and Local property taxes are applied to the mining companies in the same ner that they are applied to other property owners in the local taxing district.

Property Tax.

$6,000,000 Net depreciable assets

x 17.4% Average current assessment ratio

x 50.0% Taxable value ratio

x173.5384 Average current statewide mill levy

$90,587 Tax due due year

Coal Facility Tax

1. For all coal conversion facilities, other than electrical generating plants and coal gasification plants as provided in subsections 2 and three of this section, the tax shall be measured by the gross receipts derived from such facility for the preceding calendar year and shall be in the amount of two and one-half percent of such gross receipts;

2. For electrical generating plants, the tax shall be at a rate of twenty-five one-hundredths of one mill on each kilowatt hour of electricity produced for the purpose of sale; and

3. For coal gasification plants, the tax shall be either the amount provided in subsection 1 or ten cents on each one thousand cubic feet of synthetic natural gas produced for the purpose of sale, whichever is greater.

Source: S. L. 1975, ch. 562, A2.

Each coal conversion facility shall be classified as personal property and shall be exempt from all ad valorem taxes except for taxes on the land on which such facility is located. The taxes imposed by this chapter shall be in lieu of ad valorem taxes on the property so classified as personal property. The taxes imposed by this chapter shall also be in lieu of those taxes imposed by chapters 57-33 and 57-33.1 on cooperative electrical generating plants that qualify as coal conversion facilities as defined in this chapter for gross receipts derived from the operation of such plants on or after July 1, 1975. Each cooperative electrical generating plant shall receive a credit against the taxes imposed by this chapter for any taxes imposed pursuant to chapters 57-33 and 57-33.1 and payable after July 1, 1975. Such credit shall apply only for such taxes actually paid, and shall be applied against the taxes imposed by this chapter in the years in which such payments are made.

Source: S. L. 1975, ch. 562, A6.

Tax Distribution.

Severance Tax. Allocation of moneys in coal development fund. -Moneys deposited in the coal development fund shall be apportioned quarterly by the state treasurer as follows:

1. Thirty-five percent shall be credited to a special fund in the state treasury for distribution through grants by the coal development impact office to impacted cities, counties, school districts, and other taxing districts, subject to appropriation by the legislative assembly.

2. Thirty percent shall be credited to a special fund in the state treasury to be held in trust to be administered by the board of university and school lands, which shall have full authority to invest such funds and may consult with the state investment board as provided by law. The income from such trust shall be deposited in the state's general fund. Such trust fund shall be perpetual and held in trust as a replacement for depleted natural resources.

3. Five percent shall be allocated to the coal-producing counties and shall be distributed among such counties in such proportion as the number of tons of coal severed in each county bears to the total number of tons of coal severed in the state during such quarterly period. Such allocations shall be credited to the county general fund.

4. The balance shall be deposited in the state's general fund.

Source: S. L. 1975, ch. 563, A12.

57-62-03. Coal Development Impact Office - Appointment of Director. -There is hereby created in the office of the governor a coal development impact office. The director shall be appointed by and shall serve at the pleasure of the governor. The salary of the director shall be set by the governor within the limits of legislative appropriations. The director may employ such other persons as may be necessary and may fix their compensation within the appropriation made for such purpose.

Source: S. L. 1975, ch. 563, A13.

Impact Aid Program.

Powers and duties of coal development impact office. -The coal development impact office shall:

1. Develop a plan for the assistance, through financial grants for services and facilities, of counties, cities, school districts, and other political subdivisions in a coal development impact area.

2. Advise, study, recommend, and report to the governor and the legislative assembly on the impact to the state and the political subdivisions of the state resulting from coal development.

3. Establish procedures and provide proper forms to political subdivisions for use in making application for funds for impact assistance as provided in this chapter.

4. Make grants to counties, cities, school districts, and other taxing districts as provided in this chapter and within the appropriations made for such purposes. In determining the amount of impact grants for which political subdivisions are eligible, the amount of revenue to which such political subdivisions will be entitled from taxes upon the real property of coal development plants and from other tax or fund distribution formulas provided by law shall be considered.

Source: S. L. 1975, ch. 563, A14.

Privilege Tax on Coal Conversion

1. The first one hundred thousand dollars of annual revenue received from the taxation of each coal conversion facility in each county pursuant to this chapter shall be allocated one hundred percent to the county.

2. The second one hundred thousand dollars of annual revenue received from the taxation of each coal conversion facility in each county pursuant to this chapter shall be allocated fifty percent to the county and fifty

percent to the state general fund.

3. All annual revenue in excess of two hundred thousand dollars but not in excess of five hundred thousand dollars received from the taxation of each coal conversion facility in each county pursuant to this chapter shall be allocated twenty-five percent to the county and seventy-five percent to the state general fund.

4. All annual revenue in excess of five hundred thousand dollars but not in excess of one million dollars received from the taxation of each coal conversion facility in each county pursuant to this chapter shall be allocated fifteen percent to the county and eighty-five precent to the state general fund.

5. All annual revenue in excess of one million dollars received from the taxation of each coal conversion facility in each county pursuant to this chapter shall be allocated ten percent to the county and ninety percent to the state general fund.

Source: S. L. 1975, ch. 562, A14.

SOUTH DAKOTA

A domestic coal corporation is subject to:

General Income Tax - none.

General Property Tax. Mines and mining equipment subject to local property taxes on assessed valuation at local tax rates.

Severance Tax. The tax rate is four percent of net profits. Net profits are defined to be the gross yield of the business from mineral or mineral product extraction during the preceding calendar year, less specified deductions. The deductions from gross yield are as follows:

1) The cost of extracting the mineral or mineral products from the mines;

2) The cost of transporting the mineral or mineral products from the mines to the place or places of reduction, refining, and sale;

3) The cost of marketing and delivering the products and the conversion of the same into money;

4) The cost of maintenance and repairs of all mine machinery, equipment, apparatus, and facilities; all milling, smelting, and reduction works, plants, and facilities; all transportation facilities and equipment; and general administrative buildings and facilities within the state of South Dakota;

5) The cost of reduction, refining, and sale;

6) All interest costs and all insurance costs paid or accrued on the machinery, equipment, apparatus, works, plants, and facilities, including moneys expending for industrial insurance or workmen's compensation, the actual cost of hospital and medical attention, accident benefits, group insurance, pensions, recreation, and payments into pension and profit sharing trusts and employee welfare;

7) Depreciation on the cost of machinery, equipment, apparatus, works, plants, and facilities listed in paragraph (5) at the same rates allowable for federal income tax purposes;

8) The cost of development and exploration work in or about the mine or upon a group of mines when operated as a unit;

9) All state and local taxes;

10) General administrative expense in connection with mining or extracting and million operations, incurred within the state of South Dakota.

The tax includes those operations which produce minerals or mineral products with a market value of less than $100,000 annually.

Distribution of Severance Tax. To state General Fund.

WYOMING

A domestic coal corporation is subject to:

A Franchise tax based on the corporate property and assets located and employed within the state. Rates range from $5 on assets of $50,000 or less to $50 on assets over $500,000 but not over $1,000,000, plus an additional $50 for each one-million dollars or fraction thereof of assets in excess of one-million dollars;

A General Property tax with all taxable property assessed at its fair value. However, the gross value of coal produced is assessed at 100 percent of value in lieu of an assessment on land. Rates are the aggregate of state and local levies variable according to location. Machinery and equipment are valued at depreciated value and assessed at local assessment levels.

A severance tax at the rates of the value of gross production as follows:

> The severance tax is levied at 4% of the value of the gross product of trona, coal, petroleum, natural gas, oil shale, or any other fossil fuel. The additional severance tax rates on coal are as follows: coal produced in 1974, .4% of the value of coal produced; coal produced in 1975, .8%; coal produced in 1976, 1.2%; coal produced in 1977, 1.6%; and coal produced in 1978 and thereafter, 2%.

Distribution of Revenues:

Severance Taxes; Excise tax of 2 percent to state general fund.

Additional excise tax of 2 percent to permanent Wyoming Trust Fund the interest from the fund distributed to the state general fund.

Privilege tax with rates rising to 2 percent in 1978 distributed as follows:

The privilege tax is under the jurisdiction of the existing Farm Loan Board and is administered by it for use in areas which are impacted by the production of coal, directly or indirectly. The Act provided that at least 60 percent of the revenue must be used for highways, roads, and streets, the remainder is for water and sewer projects. Apparently, the rationale for water and sewer projects is that such facilities increase the costs of new housing needed in impact areas by perhaps $2,200 per unit. Financing such facilities make better quality housing available to incoming workers.

Distribution of the revenues is allowed only on a determination that (1) the applicant has or will fully utilize all local revenue sources available; (2) local revenue sources are insufficient; and (3) the project is necessary. The Board can either make direct grants to local governments or pledge to local governments. In the latter instance, the local governments would either bond themselves for construction ofthe project or finance it through the Community Development Authority, and the pledge of severance tax revenues could be repledged to pay the appropriate bonds. For highway projects, the grants or pledges can be utilized directly by the State Highway Commission or to refund bonds issued by the CDA for its use.

The Community Development Authority may establish a special reserve fund from one-half of one percent of the severance tax on coal, trona, oil, gas and other fossil fuels. This is equal to one-fourth of the 2 percent severance tax, which flows to the general fund. The revenues would be used as additional backing for the principal and interest of the Community Development bonds. These bond monies are used for infrastructure financing in impacted communities by means of direct loans.

APPENDIX "D"
Prepared by Western
Governor's Regional
Energy Policy Office

SUMMARY

The Western Governors' Regional Energy Policy Office was directed by its Board of Directors to prepare reports analyzing the taxation of coal mining in western states. The reports were to be designed to evaluate the taxation of coal mining from the viewpoint of public finance theory and to recommend tax policies based upon sound economic theory and policies as well as practical considerations in state and regional economic planning. It is intended that the reports will enable the governors, legislatures, and the general public to determine the most desirable tax structure to adopt for the taxation of coal mining. Several states have recently modified their taxes on coal mining; other states have been evaluating new taxes on coal mining or a modification of their existing tax structures in regard to the taxation of this business activity.

An initial WGREPO report, published last January, entitled "Taxation of Coal Mining: Review with Recommendations," explored the development of the taxation of coal mining with emphasis on severance taxes and property taxes. The report recommended methods of taxing coal mining enterprises consistent with principles of taxation.

The present report sets forth the taxes on coal mining in seven western states. Two hypothetical mines, surface and underground, from U.S. Bureau of Mines studies are, in a sense, placed on a magic carpet and located in each state. The property, income, franchise, severance, and gross receipts taxes are calculated as if the mine were in operation in each state.

The tax comparisons from state to state enable the reader to compare both total taxes and specific taxes between states. Total taxes are shown on a per ton basis in Table 1 to assist in evaluating the productivity of these tax systems. These data are predicated in a model mine in each state; actual taxes per mine would vary insofar as the model mine is different from a typical mine in a state.

Summary of Annual Taxes on Surface and Underground Mining based on U.S. Bureau of Mines Models, Selected States, 1975-76

State	Surface Mine 9.2 Million Ton Annual Production	
	Total Taxes	Taxes Per Ton
Arizona	$4,224,920	$.46
Colorado	$1,458,292	.16
Montana	$13,580,680	1.48
New Mexico	$2,434,198	.26
North Dakota	$4,978,686	.54
Utah	$ 798,307	.09
Wyoming	$4,004,700	.43

Percent of Taxes by Source

Surface Mine with 9.2 Million Ton Annual Production

Based on Bureau of Mines Model, Selected States, 1975-76

	Source of Tax Revenue in Percent					
State	Severance	Property	Income	Gross Receipts	Misc.	Total
Arizona	None	74.5%	5.0%	20.6%	None	100%
Colorado	None	81.8	13.5	None	4.7	100
Montana	70.4	26.5	1.8	None	1.4	100
New Mexico	13.8	24.3	7.9	52.1	1.8	100
North Dakota	96.1	.8	3.0	None	.1	100
Utah	None	72.7	27.3	None	None	100
Wyoming	41.4	58.5	None	None	None	100

Total Taxes by Source of Tax

Surface Mine with 9.2 Million Ton Production

Based on U.S. Bureau of Mines Model, Selected States, 1975-76

Annual Tax, Source (in millions of dollars)

State	Severance	Property	Income	Gross Receipts	Misc.	Total
Arizona	None	$3.147	$.210	$.868	None	$4.225
Colorado	None	1.193	.197	None	$.069	1.458
Montana	$9.556	3.599	.240	None	.184	13.581
New Mexico	$ .338	.497	.191	1.267	.044	2.434
North Dakota	$4.784	.042	.150	None	.002	4.979
Utah	None	.580	.218	None	None	.798
Wyoming	$1.659	2.344	None	None	.001	4.004

MONTANA

Taxes on Surface Mine with 9.2 Million Ton Production

1)	Resource Indemnity Trust Tax	$ 184,280
2)	Property Tax on Production	2,293,600
3)	Property Tax on Machinery and Equipment	1,305,600
4)	Severance Tax	9.556,800
5)	Corporation Income Tax	240,400
	Total Taxes	$13,580,680

MONTANA

Calculation of Taxes on

Surface Mine with 9.2 Million Ton Production

Gross value for severance, production tax calculations, and resource indemnity tax.

Operating costs before severance, production tax, or state income tax	$24,732,900
Gross profit	+7,123,000
Gross sales	$31,855,900

Resource Indemnity Trust Tax

Gross value	$31,855,900
Tax rate	$25 plus ½ of 1% of gross value
Tax	$ 184,280

Property Tax on Production

Gross value of production	$31,855,900
Assessed at 45%	$14,335,155
Tax rate	160 mills
Taxes	$ 2,293,600

Severance Tax

Gross value before property tax on production and resource indemnity trust tax.

$31,855,900
30%
9,556,800

Property Tax

Machinery & Equipment

Original investment	$34,464,200
Less depreciation-2 years	-7,263,200
	27,201,000
Assessed level	30%
	8,160,300
Tax rate	160 mills
Taxes	$ 1,305,600

(continued on following page)

State Corporation Income Tax - Surface Mine

Sales	$51,013,580
Operating Costs	31,855,900
Plus	
Severance Tax Indemnity Tax Gross Production Tax	12,034,680
Total	$43,890,580
Gross Profit	$ 7,123,000
Depletion[1]	3,561,500
Taxable Income	3,561,500
Tax Rate	6 3/4%
Taxes	$ 240,400

---

[1] Not to exceed 50% of taxable income without depletion allowance.

NORTH DAKOTA

Taxes on Surface Mine with 9.2 Million Ton Production

1)	Annual Report Fee	$ 20
2)	Coal Mining Permit Fee	2,391
3)	Property Tax	41,605
4)	Severance Tax	4,784,000
5)	State Income Tax	114,840
6)	Privilege Tax on Business	35,830
	Total Taxes	$4,978,686

NORTH DAKOTA

Calculation of Taxes on Surface Mine with 9.2 Million Ton Production

Real Property Tax	
Actual Investment	$3,620,800
Add: Indirect costs (13.6%)	492,400
Less: Depreciation - 2 years	812,000
	2,316,400
Assessment Factor	.207
	479,500
Less 50%	239,700
Taxable Value	239,700
Tax Rate	173.54 mills
Tax	$ 41,605
Severance Tax	
9.2 million tons @ 52 cents per ton	$4,784,000
Annual Report Fee	$ 20
Coal Mining Permit Fee	$ 2,391
Privilege Tax	
Net Income	$3,585,000
Standard Deduction	- 2,000
Taxable Base	3,583,000
Tax Rate	1%
Tax	$ 35,830
Corporate Income Tax	
Sales	
Sales	$35,378,300
Operating Cost	28,255,300
Gross Profit	7,123,000
Depletion	3,539,800
Taxable Income	3,585,200
State Income tax	$ 114,840
Tax rate - 5%	
Federal Income Tax	$1,665,700

Note: Federal income tax is deductible in arriving at net taxable income for state income tax purposes.

WYOMING

Taxes on Surface Mine with 9.2 Million Ton Production

1)	Property Tax on Machinery, Equipment, & Buildings	$ 270,000
2)	Property Tax on Production	2,074,000
3)	Mineral Trust Fund, Excise, and Added Excise	1,659,200
4)	Franchise Fee	1,500
	Total Taxes	$4,004,700

Source: Table 9-A

WYOMING

Calculation of Taxes on

Surface Mine with 9.2 Million Tons Production

Property Tax

Machinery, Equipment, and Buildings*

Taxable Investment	$18,000,000
Depreciation - 2 years	None
Full Basis	18,000,000
Assessed at 25%	4,500,000
Tax Rate	60 mills
Tax	$ 270,600

Mineral Trust, Excise, and Added Excise

Taxable Value of Coal	$34,566,600
Tax Rate	4.8%
Taxes	1,659,200

Property Tax on Production

Taxable Value of Coal	$34,566,600
Average Levy	60 mills
Taxes	$ 2,074,000

Franchise Fee

Assets	$29.8 million
Rate	50 per $1 million
Tax	$1,500

*Does not include preparation, storage, loading, or railroad facilities

APPENDIX "E"
Prepared by Western
Governor's Regional
Energy Policy Office

COAL RESOURCES

Coal Use:

	Thousand Tons 1974	Thousand Tons 1975
Colorado	34,972	38,261
Montana	4,252	4,514
North Dakota	5,812	5,650
South Dakota	442	2,200
Utah	7,290	8,210
Wyoming	6,731	7,855
REGION VIII TOTAL	59,499	66,690
U.S. Total	603,479	640,826
Total Export	45,809	48,405

Coal Production:

	Thousand Tons Underground	Thousand Tons Surface	1974 TOTAL
Colorado	3,260	3,636	6,896
Montana	0	14,106	14,106
North Dakota	0	7,463	7,463
South Dakota	0	0	0
Utah	5,858	0	5,858
Wyoming	526	20,176	20,702
REGION VIII TOTAL	9,644	45,381	55,025

NORTH CENTRAL POWER STUDY (NCPS)

Study Area:

Utah, Colorado, Wyoming, Idaho, Montana, North Dakota, South Dakota, Missouri, Nebraska, Kansas, Iowa, and Minnesota, and minor parts of Illinois, Oregon, and Wisconsin.

Time Frame:

1978 to 2000; Investigation years for data gathering and analysis; 1980, 1985, 1990 and 2000.

Assumption:

Overall Annual Growth Rate for Power Consumption = 6.5% between 1980 and 2000.

Coal Resources:

Proven reserves capable to produce 200,000 MW of thermal generation from sub-bituminous and lignite fields of Montana, North Dakota, South Dakota, Wyoming, and Colorado.

Estimated Total NCPS Coal Use: 8 Billion Tons

Power Generation Potential:

Ultimate development level to be supplied from NCPS resources equals 53,000 MW

Generation potential based on strippable coal sites for 1,000 MW or more base-load mine-mouth generating plants:

13	10,000 MW plants	
11	5,000 MW plants	
3	3,000 MW plants	
15	1,000 MW plants	
42	209,000 MW	TOTAL

NORTHERN GREAT PLAINS RESOURCE PROGRAM (NGPRP)

Study Area:

63 counties in Montana, North Dakota, South Dakota, and Wyoming.

Time Frame:

1975, 1980, 1985, and 2000.

Assumption:

Annual growth rate in National energy consumption of 3.27%.

Coal Resource:

160 billion tons: reserve base, measured and indicated by studies, minable (37% of Nation's coal reserve base)

80.2 billion tons: minable by surface methods.

NGP Projected Coal Production:

Coal Development Profile (CDP)	1975	Million Short Tons 1980	1985	2000
Low (I)	52	91	108	144
Intermediate (II)	52	107	192	362
High (III)	52	160	382	977

CDP I: Sufficient to meet existing contractual agreements in regional demand for coal ("low" level for future energy development).

CDP II: Conforms to 1973 regional energy supply projections of DOI ("intermediate" level)

CDP III: NGP response to long-range national "emergency" based upon shortfalls in imported petroleum, Canadian natural gas, and nuclear generating capacity ("high" level).

Additional Coal Development Profile Data
Number of Facilities (All Numbers Cumulative)

		1980	1985	2000
CDP I:	Export Mines	14	15	18
	Powerplants (MW)	12 (5613 MW)	14 (6613 MW)	20 (13100 MW)
	SNG Plants	0	0	0
CDP II:	Export Mines	16	20	24
	Powerplants (MW)	12 (5613 MW)	14 (6613 MW)	25 (19400 MW)
	SNG Plants	0	7	16
CDP III:	Export Mines	16	26	64
	Powerplants (MW)	12 (5613 MW)	14 (6613 MW)	25 (19400 MW)
	SNG Plants	7	13	41

NSF/RANN MONTANA UNIVERSITY

Coal Demand Study Projections of NGP Coal Mining and Energy Conversion Development

Study Area:

Montana and adjacent NGP States (and expanded 21-state market area)

Time Frame:

1975, 1980, 1985, 2000

Assumptions:

NGP Coal Development Dependent Upon:

- Geographic Extent of Market
- Growth of Electric Energy Demand (1%, 3%, or 5%)
- Fuel Mix (Allocation of Projected Electric Energy Demand Among Alternative Fuel Sources)
- Fuel Source (Share of Coal Demand in NGP Market Region Met by NGP Coal)

Most Reasonable Coal Production in NGP:

I. Based on Constant Growth in Electrical Generation, 1980-Based Contract Share of All Coal Demand, and Constant Share to Coal Vis-A-Vis Other Fuels.

Expanded Market Estimate

Growth in Electrical Production	1980 NGP Coal Share	Millions of Tons		
		1980	1985	2000
3%	.77	135.7	137.3	213.8
5%	.67	135.7	172.9	359.5

II. Based On Price Sensitive Estimate of Growth in Electrical Generation, 1980-Based Contract Share of Coal Demand, and Constant Share to Coal Vis-A-Vis Other Fuels

Expanded Market Rate

Annual Rate of Price Increase (Electric, Gas)	1980 NGP Coal Share	Millions of Tons		
		1980	1985	2000
FPC, 3%	.65	135.7	161.3	221.3
3%, 5%	.72	135.7	130.1	114.7

ERDA - NATIONAL PLAN FOR ENERGY RESEARCH, DEVELOPMENT AND ADMINISTRATION

Study Area:

United States

Time Frame:

1985 and 2000

Scenarios:

0	No New Initiatives
I	Improved Efficiencies in End-Use
II	Synthetics for Coal and Oil Shale
III	Intensive Electrification
IV	Limited Nuclear Power
V.	Combination of All Technologies

Coal Production:

	Millions of Tons	
	1985	2000
Scenario 0	1006	1614
Scenario I	879	1091
Scenario II	1108	2370
Scenario III	957	1453
Scenario IV	951	2184
Scenario V	863	1862

NOTE: Scenario II represents a ten-fold increase in coal synthetics between 1985 and 2000 and also the largest demand on coal (a doubling of production from 1985 (1975: 640 MT) and doubling again by 2000.

General Conclusion:

To meet mid-term (1985-2000) requirements for liquid fuels and to buy time to prepare for long-term (beyond 2000) requirements, it is necessary to pursue all technology "packages" (i.e., Scenario V).

U.S. BUREAU OF MINES - ENERGY THROUGH THE YEAR 2000 (REVISED)

Study Area:

United States

Time Frame:

1974, 1980, 1985, 2000

Assumptions:

Estimated Increases in GNP and Population Growth

Not too Restrictive Regulation of Surface Mining

Government Leasing of Western Coal, Off-Shore, Oil Shale, and Geothermal Lands

Government R&D Support

Relaxation of Well Head Price Regulations

1974 Prices (i.e., no price effects considered)

Further Development of Commercial Techniques for Coal Gasification and Liquefaction

Further Development of Sulfur Oxide Control

Coal Consumption by Sector:

	Million Short Tons			
Domestic Demand:	1974	1980	1985	2000
Household & Commercial	10.9	4	3	----
Industrial	155	185	190	228
Electrical Generation	390.6	547	704	941
Syntehtic Gas	-----	----	26	300
Synthetic Liquids	-----	----	---	91
Total Domestic Demand	556.5	736	923	1560
Total Export Demand	59.1	70	75	100
Total Demand	615.6	806	998	1660

1975 COAL PRODUCTION FIGURES
MINES IN MONTANA, WYOMING, AND NORTH DAKOTA

State	Mine Name	Company	1975 Production (Tons)
Montana	Decker No. 1	Decker Coal Co.	9,174,634
Montana	Rosebud	Western Energy Co.	6,407,307
Montana	Absaloka	Westmoreland Resources	4,048,082
Montana	Big Sky	Peabody Coal Co.	2,103,110
Montana	Savage	Knife River Coal Co.	320,000
TOTAL			22,053,133
Wyoming	Belle Ayr	AMAX Coal Co.	3,288,079
Wyoming	Dave Johnston	Pacific Power & Light Co.	3,231,649
Wyoming	Seminor No. 2	Arch Minerals Corp.	2,942,064
Wyoming	Sorenson	Demmerer Coal Co.	2,731,351
Wyoming	Medicine Bow	Arch Minerals Corp.	2,570,509
Wyoming	Seminoe No. 1	Arch Minerals Corp	2,440,619
Wyoming	East Antelope	Best Coal Co.	1,195 (1974)
Wyoming	Wyodak (South Pit)	Wyodak Resources Development Co.	727,019 (1974)
Wyoming	Welch	Welch Coal Co.	18,708 (1974)
Wyoming	Big Horn	Big Horn Co.	444,545 (1974)
TOTAL			18,395,738
North Dakota	Glenharold	Consolidation Coal Co.	1,983,872
North Dakota	Gascoyne	Knife River Coal Mining Co.	1,979,253
North Dakota	Husky #2	Husky Industries	160,657 (1974)
North Dakota	Center	Baukol-Noonan, Inc.	1,563,446 (1974)
North Dakota	Beulah (North & South)	Knife River Coal Mining Co.	1,726,349 (1974)
North Dakota	Indian Head	North American Coal Corp.	1,090,144 (1974)
North Dakota	Velva	Consolidation Coal Co.	428,163 (1974)
North Dakota	Noonan	Baukol-Noonan, Inc.	482,299 (1974
TOTAL			9,414,183

	TONS
Montana	22,053,133
Wyoming	18,395,738
North Dakota	9,414,183
	≈ 49,863,054

APPENDIX "F"

RESOLUTION BY THE TASK FORCE ON TAXATION OF ENERGY RESOURCES

May 4, 1976

WHEREAS, coal development in the four-state region affects social and economic conditions and it is the desire of the Taxation Task Force to know whether or not the taxes collected at the present time and at the present level are sufficient to cover the development impacts;

NOW, THEREFORE, BE IT RESOLVED BY THE TAXATION OF ENERGY RESOURCES TASK FORCE OF THE FORT UNION COAL OPERATION MADE UP OF REPRESENTATIVES FROM THE STATES OF NORTH DAKOTA, SOUTH DAKOTA, MONTANA, AND WYOMING:

That the Task Force on Social and Economic Impact is hereby requested to provide input to the Task Force on Taxation of Energy Resources on the question of sufficient tax levels to cover coal impact.

PARTIAL ANSWER TO THE TAXATION OF ENERGY RESOURCES TASK FORCE FROM THE SOCIAL AND ECONOMIC IMPACT TASK FORCE ON THE SUBJECT OF THE SUFFICIENCY OF SEVERANCE TAXES TO COVER IMPACT

The resolution requesting information from the Social and Economic Impact Task Force on whether or not present severance tax levels are sufficient to meet impact was discussed at the organizational meeting on May 21, 1976. Three main points came out of the discussion.

1. Yes, tax levels are sufficient; however, the main problem is that of timing. In other words, the very expensive front-end financing and cost of preplanning very desperately need current funding; however, the majority of the money available for "front-end" financing of impact will come only after mining has begun.

2. Taxes may be sufficient, but allocation directly to impact is insufficient.

3. More study would have to be done prior to formulating a complete response to the Taxation of Energy Resources Task Force and also the term "impact" would have to be defined by the Social and Economic Impact Task Force before any further response could be made.

RESOLUTION OF THE
COMMON DATA ELEMENT AND INFORMATION EXCHANGE TASK FORCE
TO ALL FORT UNION REGIONAL TASK FORCES

WHEREAS, part of the charge of the Common Data Element and Information Exchange Task Force is to encourage development and compilation of a common data element dictionary; and

WHEREAS, task force discussion at its meeting of June 9, 1976, indicated the need for such a definition of terms; and

WHEREAS, the task force must initially define what a common data element dictionary should contain; and

WHEREAS, it was the general concensus of the task force that the dictionary not be a definition of terms, but an explanation of base data that is used in doing impact statements, energy demand studies, population projections, etc.

BE IT RESOLVED, that inasmuch as each task force possesses expertise in its own area, the Common Data Element and Information Exchange Task Force recommends that each task force develop its own definitions for their particular area of study and forward them to the Common Data Element and Information Exchange Task Force as soon as possible after the next meeting of the other task forces.

APPENDIX "I"
Prepared by Eleanor
Eck, Montana
Legislative Council

TAXATION OF ENERGY RESOURCES
FORT UNION COAL REGIONAL TASK FORCE
MINUTES OF MAY 4, 1976 MEETING
RAMADA INN, BILLINGS, MONTANA

The meeting was called to order at 9:00 a.m. by moderator Senator Matt Himsl, Montana. Roll was called, and the following members of the committee were present: North Dakota Senator Robert L. Stroup; Dr. Robert Korbach, Assistant Professor, Economics Department, University of North Dakota; Mr. Arnold Burian, substituting for Commissioner Byron Dorgan, North Dakota; South Dakota Senators Curtis Jones and Kenneth B. Jones; South Dakota Representative Derald B. Gellhaus, Mr. Luther Thompson, substituting for Mr. Vince Montgomery, South Dakota; Wyoming Representative James D. Mockler; Dr. Gordon Ward, substituting for Senator Gerald E. Geis, Wyoming; Montana Senators Matt Himsl and Robert E. Lee; Montana Representatives Dan Yardley and Jack K. Moore; and Mr. James H. Nybo, Energy Research Coordinator, MEAC Staff, Montana. Also present were Mr. John Graham, Executive Director of the North Dakota Legislative Council; Sheila Miedema, Coordinator, Fort Union Regional Task Forces; Rose Weber, Executive Director, and Eleanor Eck, Administrative Assistant, Montana Legislative Council. Members of the committee who were not present were Honorable William G. Goetz, Ms. Phyllis Howard, North Dakota; and Mr. Lyle Wendall, South Dakota.

Senator Himsl welcomed the committee and gave a brief explanation of the purpose and goal of the task force. He introduced Mr. John Graham of the North Dakota Legislative Council, who explained that seven task forces have been appointed in the four-state area and are funded by a grant from the National Science Foundation. Each state has agreed to be lead state in one or more of the task forces. He advised the committee members that their travel expenses will be paid from the grant and will include actual commercial air travel expenses or 15¢ per mile by car, and $33 a day per diem (for the meeting day only). Mr. Graham introduced Sheila Miedema, Coordinator of the Fort Union Regional Task Forces, and stated that their office will act as the administrative office for the various task forces. It will handle mailing of minutes, documents, information, etc., to all members of the task forces.

The first order of business was the election of a chairman. Representative Moore, Montana, nominated Senator Himsl, Montana, as chairman. The nomination was seconded. Senator Kenneth Jones, South Dakota, moved that nominations cease and a unanimous ballot be cast for Senator Himsl. The motion was seconded and carried.

Representative Moore, Montana, nominated Senator Kenneth Jones of South Dakota as Vice Chairman. Representative Yardley, Montana, seconded. Senator Stroup, North Dakota, moved that nominations cease and a unanimous ballot be cast for Senator Kenneth Jones. The motion was seconded and carried.

Senator Himsl suggested that the committee elect a permanent secretary, and suggested that Eleanor Eck be nominated. Representative Moore so moved. The motion was seconded. Senator Curtis Jones moved that the secretary be elected by acclamation. The motion was seconded and carried.

PROCEDURAL RULES

Senator Himsl observed that there were some procedural rules to be established at this time.

1) Quorum. Mr. Nybo moved that a quorum be established at 11 members. Senator Lee seconded, and the motion carried.

2) Voting--whether or not each state would have to be represented in the voting process or if the simple majority of this committee would prevail. Representative Mockler moved that the will of the committee be expressed by a simple majority. The motion was seconded and carried.

Senator Himsl proposed that this task force be run as a legislative committee since there are no specific ground rules. The participation would be on the part of and by the members of the committee with the exception of when the committee would want to hear expert testimony or ask observers questions, but that discussion be confined to and among members of the committee.

Senator Jones asked if those representing a member of the committee would have voting rights so long as they have prior clearance.

Senator Stroup moved that an individual who is unable to attend could send a proxy in his stead. Senator Kenneth Jones seconded, and the motion carried.

INFORMATION REQUESTED FROM EACH STATE

1) An overview of the method of taxation to include both dollars and percentages of the total revenue or general fund;

2) The ten-year projections of the executive branch relating to production of coal and anticipated revenue of coal development (to be submitted by Nybo-Montana, Burian-North Dakota, Mockler-Wyoming, and C. Jones-South Dakota);

3) The impact of taxes on coal production;

4) The number of applications applied for and withdrawn by coal companies, the dominant factors for the withdrawal of the applications--tax, fee schedule or environmental concerns involved (to be submitted by Nybo-Montana, Stroup-North Dakota, Mockler-Wyoming, and C. Jones-South Dakota).

ITEMS FOR DISCUSSION-SPEAKERS TO BE INVITED TO FUTURE MEETINGS

1) The factors involved in passing coal tax legislation--are high taxes on coal passed in order to stop development? The goals of coal taxation? Are other areas of our tax system used as a method of control?

2) The development of Indian coal where the development would become attractive because that coal is not subject to the same taxes as coal found on non-Indian lands; the jurisdiction of taxation on Indian coal;

3) Mr. Leonard Bronder, Resource Economist for the Western Governors Regional Policy Office in Denver--the comparison between the states relative to their tax structure and the effect of higher taxes on where coal companies are likely to purchase coal;

4) The feasibility of establishing a national severance tax on coal that would allow a credit for a state tax of comparable source--the national perspective; (Nybo-Montana, will submit information about the proposed federal legislation; Mr. William H. Budd, Mining Association, Wyoming, suggested as speaker);

5) Uniformity in coal taxation in the states where there is coal mining;

6) Invite coal industry people, Secretary of Interior, and other federal people to present information.

TASK FORCE GOALS ESTABLISHED

1) Feasibility of continuing a regional task force similar to this one;

2) The exchange of data to allow for possible interstate cooperation and uniformity.

The task force members anticipate a total of three meetings. The next meeting was scheduled for the week of June 14, 1976, to be held at the Ramada Inn, Casper, Wyoming.

All arrangements for the distribution of data from each state will be made through the Coordinator and the information is to be submitted to her within the next two-week period for dissemination to all task force members. The Coordinator will also make arrangements for the speakers requested to attend the next meeting; she will give consideration to the activities of the Social and Economic Impact Task Force for possible concerns to the Taxation Task Force.

Representative Moore moved that the meeting be adjourned. The motion was seconded and carried. The meeting adjourned at 3:00 p.m.

APPENDIX "J"
Prepared by Eleanor
Eck, Montana Legislative
Council

TAXATION OF ENERGY RESOURCES
FORT UNION COAL REGIONAL TASK FORCE
MINUTES OF JUNE 23, 1976 MEETING
LITTLE AMERICA HOTEL
CHEYENNE, WYOMING

The meeting was called to order at 9:30 a.m. by Chairman Senator Matt Himsl, Montana. Roll was called, and the following members of the task force were present:

South Dakota

Senator Curtis Jones
Senator Kenneth B. Jones
Mr. Vince Montgomery

North Dakota

Senator Robert L. Stroup
Representative William G. Goetz
Mr. Arnold Burian (substituting for Mr. Byron Dorgan)

Wyoming

Senator Gerald E. Geis
Mr. Vern Rissler

Montana

Senator Matt Himsl
Representative Jack K. Moore
Mr. James H. Nybo

Members of the task force who were not present were:

South Dakota

Representative Derald B. Gellhaus
Mr. Lyle Wendall

North Dakota

Ms. Phyllis Howard
Dr. Robert Korbach

Wyoming

Representative James D. Mockler
Dr. Gordon Ward
Mr. Renio A. Hakala

Montana

Senator Robert E. Lee
Representative Dan Yardley

Also present were Mr. Russ Strange of the National Science Foundation; Representative Anderson (Michigan), representing the National Conference of State Legislatures; Mr. Leonard Bronder, Western Governors' Regional Energy Policy Office Economist; Ms. Nancy Carlisle (WGREPO); Mr. K. K. Kittler; Mr. Dan Spangler; and Ms. Sheila Miedema, Project Coordinator of the Fort Union Regional Task Forces.

Consideration of Minutes

The Chairman called for consideration of the minutes of the previous meeting. It was noted that Dr. Ward was not a substitute for Senator Geis at that meeting. Dr. Ward is a member of the task force, and therefore the words "substituting for Senator Gerald E. Geis" should be stricken from the minutes. It was moved and seconded that the minutes be accepted as amended. The motion carried.

Chairman Himsl introduced Mr. Strange of the National Science Foundation and Representative Anderson of the National Conference of State Legislatures, and welcomed them to the meeting. Representative Anderson explained that he is chairman of the Committee on Science and Technology for the NCSL and is here as an observer. He stated that if the NCSL can be of any assistance with respect to the National Conference's involvement in task force affairs, they would be pleased to assist.

The project coordinator reviewed information which had been requested by the task force regarding net receipts from coal taxes in the four states.

Mr. Nybo pointed out that the figures for Montana are not for fiscal year 1976, but are for the 1976-77 biennium. He also stated that in Montana, extensive use is made of funds other than the general fund and that the total of all revenues, which would include the general fund, for the same period would be $970,000,000 as contrasted with $338,000,000.

Chairman Himsl pointed out a correction to be made in the report of the Western Governors' Regional Energy Policy Office which was discussed at the last meeting. The distribution of Montana severance taxes shows coal area highway improvement, 20%. This figure should be 10%. The school equalization grant in 1980 and afterwards shows 20%, and this should also be 10%. Also, a license income tax based on federal taxable income with adjustments at the rate of 6-3/4% is paid by corporations only and not as such by partnerships or individual operators. The 6-3/4% applies to corporations only.

Chairman Himsl said that one of the concerns in imposing this tax in Montana was whether or not it was a deterrent as far as the interest of companies coming in to develop prospects or to become involved.

Mr. Nybo said his office had been unable to document any cases where they could show that was the case. He went on to say that in talking to people in the Department of State Lands who administer the Mine Land Reclamation Act, they indicated that by the time a company gets to the point of actually having applied for a permit, they have made a very substantive commitment. There is a lot of technical information required and a permit is not just a matter of coming in and then deciding if they want to mine or not. The decision is usually made by the time the permit is applied for.

He went on to say that there has been some cooling off of interest in a couple of areas, not because of the tax situation but because of the problems involved with federal lands and the Indian reservation lands. He said this is particularly true in the case of Shell and their problems in getting firm leases for Crow Indian coal.

Senator Kenneth Jones stated that it is apparent that Montana is looking to the coal industry as a revenue source to a greater extent than the other states in the formation. He asked if the tax on coal was very low prior to the new law. Chairman Himsl replied that it was low compared with this rate. This is a 30% rate, and the highest before was equivalent to about 12%. He agreed with Senator Jones' observation. The Montana legislature determined that the coal is a non-renewable resource and that not only the state, but posterity also, is entitled to a replacement in the form of the trust funds that are growing out of this. Chairman Himsl explained the distribution of the coal tax to the various funds. (This breakdown is in the Fort Union Coal Conference report.) However, there is a constitutional amendment in Montana which will be on the ballot in November that the legislature should dedicate not less than one-fourth of the coal severance tax to the trust fund, the interest and income from which may be appropriated, and the principal of the trust shall forever remain inviolate unless appropriated by a vote of three-fourths of the members of each house of the legislature, and that after December 31, 1979, at least fifty percent of the severance tax shall be dedicated to the trust fund. This is a proposal that will probably be accepted by the people.

There is another provision -- after the fund builds up to a certain level, he thought $100,000,000, then the interest can be appropriated.

There was some discussion regarding impact areas that are not located in the production area. Senator Stroup said that in North Dakota they have made provision for this by creating an impact office, and that office has the ability to be able to cross any of the divisional lines, whether they be political subdivisions, county, city, school district, etc., and they can put the impact funds where the actual impact is, not into the area of production. Chairman Himsl observed that Montana has not been faced with exactly this type of problem, but that the concern has been more with an environmental disturbance related to agricultural development in the area. In order to take care of this, Montana has provided a renewable resource development bond account where individuals can borrow money from this fund for agricultural renewal, irrigation, etc., and also that state agencies can use some of those funds if they can qualify.

Sheila Miedema reviewed the pending federal legislation related to energy development. There were two additional bills which are not on the list. One is a federal energy impact assistance bill which will give aid to impacted communities due to development of federal minerals. In these four states that would be very useful because as much as fifty percent of the minerals in Wyoming are on federal land. This bill is in committee right now but has not been heard. There is also a coastal zone bill which does not necessarily apply to this task force, which gives loans and grants to impacted communities, but we may want to watch this bill because it may set a precedent.

There were comments and observations from the task force members concerning some of this legislation, but no action was taken.

The project coordinator reviewed the resolution from this task force to the Social and Economic Impact Task Force requesting that task force to provide input to the Task Force on Taxation of Energy Resources on the question of sufficient tax levels to cover coal impact. There is a partial answer from the Social and Economic Impact Task Force setting out three main points. Ms. Miedema stated that if this task force wants the question further defined, the Social and Economic Task Force will be more than willing to look at it. There have been studies done in North Dakota and the project coordinator is searching for like studies from the other three states.

The project coordinator commented on two other resolutions to be considered by the task force. One is a resolution of the Reclamation and Land Use Task Force requesting the Task Force on Taxation of Energy Resources to add consideration of bidding, lump-sum bonus, royalties, and bonus bidding to their agenda if that task force deems it desirable.

After some discussion, Senator Stroup moved that the task force notify the Reclamation and Land Use Task Force that it does not wish to consider the bidding, lump-sum bonus, royalties, and bonus bidding as a part of the tax committee. Representative Goetz seconded, and the motion carried unanimously.

The other resolution is from the Common Data Element and Information Task Force to all Fort Union Regional Task Forces recommending that each task force develop its own definitions for their particular area of study and forward them to the Common Data Element and Information Exchange Task Force as soon as possible after the next meeting of the other task forces.

After discussing the resolution, Mr. Burian moved that each state furnish the information requested by the Common Data Element and Information Exchange Task Force as it relates to taxation in the energy field. Senator Stroup seconded, and the motion carried.

Senator Kenneth Jones suggested that this task force suggest to the Common Data Element and Information Exchange Task Force that their common data element dictionary be distributed to the appropriate planning districts within each state. The committee agreed.

Ms. Phyllis Howard, who was to make a presentation on Indian taxation laws and regulations as they relate to development, was not present at the meeting. The committee discussed various problems regarding taxation on Indian reservations as they relate to each state. There are several cases now before the state courts and the United States Supreme Court. The project coordinator said she would obtain the report from Ms. Howard and send copies to the members of the task force.

Chairman Himsl introduced Mr. Leonard Bronder, who made a presentation to the task force on an analysis of the four-state tax structures relating to coal mining. (On file.) He first explained the function of the Western Governors' Regional Energy Policy Office. It is a group organized last year in Denver to service ten states: North and South Dakota, and from Nebraska on west, including Utah and Arizona. It does not include California, Oregon, Washington or Idaho. It is established under grants from the Old West Commission and the "Four Corners" Regional Commissions. The board of directors are the ten state governors who meet and set policy about four times a year. In the interim we have governors' alternates who meet to establish the on-going policy and direction to the office. There are nine professionals and office staff in Denver, and one of the topics the governors wanted to look into last year was energy sources. There is another staff member looking into community problems and their needs.

This report is on the financial or tax side of it, and the taxation of coal mining.

Mr. Bronder introduced Nancy Carlisle, an intern from the University of Arizona, who will be with the staff for the summer and fall.

Mr. Bronder also noted that this is just a part of his report; the full report will be made available to the task force upon its completion.

The task force members discussed the report as it related to each state.

Chairman Himsl asked Mr. Bronder what the policy of the WGREPO is or what should be the purpose of a tax on a non-renewable resource. Mr. Bronder felt this should be brought up to the policy-makers. The general feeling is that there should be a very substantial tax on energy development and particularly on the non-renewable resources that would take care of the immediate and some secondary impacts; they are very aware of the needs of the communities and the problems that cause them, but the idea of a trust fund has not been really addressed. He said he would go back to them and ask them to address that.

The task force recessed for lunch and reconvened at 1:30 p.m.

Chairman Himsl thanked Mr. Bronder for his presentation and stated that the task force would be looking forward to receiving copies of his final report.

Ms. Miedema, the project coordinator, presented a list of areas for consideration by the task force.

1. Interstate collection of tax revenue relating to the fact that impact does not stop at the state line. People living in one state, working in another state, and revenue being gathered in one state but needed in the adjoining state. There could be interstate audit of coal companies that are located in more than one state.

2. Problems of determining the value of coal could be discussed.

3. Each state's experience in valuing coal.

4. Looking at other than severance taxes and how these taxes are handled. For example, the school district taxes if the plant happens to be in one school district and the children live in another school district.

5. Taxing of power lines. Right now North Dakota is being crossed and recrossed with power lines.

6. Discussion on taxation of water.

7. Discussion on equitability of tax. There are many taxes -- water taxes, sales taxes both direct and indirect, which all eventually go back to the consumer. May be feasible to have one tax to cover all these areas.

8. Look at the administrative policies and practices in the four states, such as how a value tax is administered and how the states have simplified tax laws.

9. Discussion on the problems of implementation of this type of taxes.

10. Discussion of what type of resource people you would like to bring in to explain areas you would like to know more about.

11. Discussion of the impact of taxes and the various types of taxes on production.

Senator Geis felt that a discussion of taxes and taxation would be duplicating what the NCSL is doing now.

Senator Stroup felt that this would also be a duplication of what the Western Governors report covers. He also felt that each state has a different philosophy so far as taxation is concerned and each state feels it is doing it properly. Basically, what would be desirable would be an exchange of information through this rather than any one state advocating any one particular line of taxation. What he would like to see is set this up as an informational group and being able to disseminate information that comes out of the Western Governors' Regional Office,. coming out of the Council of State Governments studies, coming out of interim study groups within each one of the state legislatures. He didn't see much value in having a number of more meetings.

Senator Moore agreed with this viewpoint. He felt that the exchange of information so far has been valuable. He moved that the task force discontinue regular meetings unless something does come up which would be beneficial to each of the four states involved. Senator Stroup seconded the motion.

Senator Kenneth Jones stated that it was his hope that the chairman would supervise the staff to develop a report that would embody the essence of the state laws and regulations regarding energy taxation, using also as resource material the additional printed matter on the subject. This could be done without further formal meetings.

Senator Stroup observed that the report of the Fort Union Coal Conference of last fall could be updated to where it would be of current status and that would be the report of this task force. Any new subject matter could be disseminated so the task force will keep current.

Senator Moore said the intent of his motion was that if something important should come up, the chairman could call a meeting.

The motion carried unanimously.

Ms. Miedema asked for a point of clarification. She stated that she would be glad to do the information exchange for the task force. However, since the Common Data Element and Information Exchange Task Force is setting up a continual type thing for when all the task forces have run their course and exchanged their information, if the exchange of information is left up to her it might end when she leaves. She asked if this task force would prefer to put this information exchange into the charge of the Common Data Element and Information Exchange Task Force.

Chairman Himsl felt that if that is the function of the Common Data Element and Information Exchange Task Force, there would be no reason to leave this task up to the project coordinator.

Chairman Himsl thanked Mr. Strange and the National Science Foundation for making possible the meetings the task force has had. Mr. Strange said the National Science Foundation has been very pleased to participate with the four states and they hope there will develop some system of information exchange. He noted there was no interest here in any regional recommendations, and they are not pushing for regional recommendations. He said this was an experiment to see if the states could work together and if they could provide the money to get things going. He said it has been a pleasure and wished the task force well.

Chairman Himsl then thanked the task force members for their participation and cooperation.

Senator Geis moved that the meeting adjourn. Senator Curtis Jones seconded, and the motion carried. The meeting adjourned at 2:15 p.m.

Final Report
# of the
FORT UNION REGIONAL TASK FORCE
ON
WATER ALLOCATION AND QUALITY PROBLEMS

Compiled by Project Coordinator
and
Edited by Task Force Members

December 1976

PROJECT COORDINATOR'S
SUMMARY REPORT

The Fort Union Regional Task Force on Water Allocation and Quality Problems had many areas of concern to research and review.

Subjects covered by that task force included: (1) the role of the federal government in the allocation of water along the Upper Missouri River Basin; (2) the possibility of future joint planning and allocation of water within the four-state region; (3) consideration of possible changes in water supplies as a result of climatic changes, and alteration of future industrial, municipal, and agricultural uses; (4) possible diminution of existing water resources as a result of inadequate planning; (5) the need for each state within the region to establish rights in the Upper Missouri River Basin; (6) the sale of water by the states to commercial enterprises; (7) the need for states within the region to update existing water usage plans and to forecast possible future uses; (8) the value of continuing and accelerating communication between the four states; (9) quality standards of underground water sources; (10) water rights of Indian tribes; (11) slurry transportation of coal; and (12) United States-Canadian relations.

The states exchanged information on their present water quality laws and the accompanying rules and regulations, and felt further interstate exchanges of information on water quantity and quality would be of real value. The Fort Union Regional Task Force concept provides a formal means of communications whereby the four Upper Missouri River Basin states are given the opportunity to meet and discuss matters of mutual concern. The task force has asked that continuing funds be applied for and that the North Dakota Legislative Council continue as coordinating entity in order for the four states to maintain, through common effort, their prerogatives over water and water rights.

TASK FORCE MEMBERS

South Dakota

Senator Mike O'Connor
1109 Lark Drive
Brandon, SD 57005

Representative Charles Mickel
P.O. Box 1641
Rapid City, SD 57701

Representative Walter D. Miller
New Underwood, SD 57761

Mr. Vern Butler, Secretary
Department of Natural Resource Development
Foss Building
Pierre, SD 57501

Mr. Mike Jandreau
Chairman of Lower Bruel Sioux Tribe
Lower Bruel, SD 57548

North Dakota

Representative Jack Olin
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Senator S. F. Hoffner
Esmond, ND 58332

Mr. Hugh Baker
Fort Berthold
New Town, ND 58763

Dr. Robert Koob, Chairman
Chemistry Department
North Dakota State University
Fargo, ND 58102

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Chief Engineer
State Water Commission
State Office Building
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Montana

Senator Margaret Warden
208 Third Avenue North
Great Falls, MT 59401

Senator W. Gordon McOmber
Fairfield, MT 59436

Representative Art Lund
Box 806
Scobey, MT 59263

Representative William M. Day
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Glendive, MT 59330

Professor T. T. Williams
Head, Civil Engineering
Montana State University
Bozeman, MT 59715

Wyoming

Senator Don Cundall
Uva Route
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Representative Leonard Graham
Little Tongue Ranch
Dayton, WY 82836

Mr. John Enger
Professor of Physics
Route 2
944 Shoshone Drive
Powell, WY 82435

Mr. George Christopulos
State Engineer
Barrett Building
Cheyenne, WY 82001

Mr. Wayne Lovercheck
Torrington, WY 82240

FINAL REPORT

Introduction

The Fort Union Regional Task Force on Water Allocation and Quality Problems had its genesis at the Fort Union Coal Conference held in Bismarck, North Dakota, in October 1975. At that time representatives from each of the four Fort Union states, sitting as a task force, discussed various issues related to water allocation and water quality.

Subjects covered by that task force included: (1) the role of the federal government in the allocation of water along the upper Missouri River Basin; (2) the possibility of future joint planning and allocation of water within the four-state region; (3) consideration of possible changes in water supplies as a result of climatic changes, and alteration of future industrial, municipal, and agricultural uses; (4) possible diminution of existing water resources as a result of inadequate planning; (5) the need for each state within the region to establish rights in the Upper Missouri River Basin; (6) the sale of water by the states to commercial enterprises; (7) the need for states within the region to update existing water usage plans and to forecast possible future uses; (8) the value of continuing and accelerating communication between the four states; (9) quality standards of underground water sources; and (10) water rights of Indian tribes.

The Water Allocation and Quality Problems panel of the Coal Conference felt interstate exchange was very useful and passed the following resolution:

> "BE IT RESOLVED, that the four states hereby assembled, including Montana, North Dakota, South Dakota, and Wyoming, do hereby resolve to continue meetings of the four-state task force for the purpose of discussing and resolving problems of water quality and quantity which are common in the four state region."

Assignment

The conference panel recommended the continuing Fort Union Regional Task Force on Water Allocation and Quality Problems discuss the following water-related problems:

1. Establish measuring and monitoring systems on stream flow and water quality within the four-state region, including information on underground waters and acquifers.

2. Develop joint underground water exploration programs between the states and encourage exploration of underground waters in the four-state region by the United States Geological Survey, including advising the Congressional Delegation from the four states of the desirability of such projects.

3. Discuss and anticipate problems which may result from the use of waters in one or more states affecting the citizens of other states.

4. Discuss existing water pollution standards in the four-state region and determine common interest in such standards.

5. Establish a common data base on the quality and quantity of water which may be available to individual states in the four-state task force region which may include information concerning availability of water under particular meteorological conditions, examination of historical climatic norms, and present and anticipated use of water.

6. Establish a continuing information exchange system concerning present and anticipated use of water in the four-state region.

7. Establishment of common four-state policies concerning federal water laws, regulations, memoranda, and policies affecting the four-state region.

8. Determine a fair and just approach to resolving claims establishing the rights of minority groups to Upper Basin water where the same may appear to conflict with other claims and rights.

The task force established the following goals at its first meeting: (1) common four-state policies concerning federal water laws, regulations, memoranda, and policies affecting the four-state region, (2) common four-state policy concerning minimal water quality standards, and (3) common four-state policies dealing with minimal standards of unallocated stream flow.

Background

Three meetings were held by the Fort Union Regional Task Force on Water Allocation and Quality Problems. The first meeting was held on Wednesday, May 5, 1976, in Billings, Montana. The second meeting was held on Wednesday and Thursday, July 28-29, 1976, in Pierre, South Dakota, and the third meeting was held on Monday and Tuesday, October 11-12, 1976, in Cheyenne, Wyoming.

Senator Gordon McOmber of Montana served as task force chairman. Senator Don Cundall of Wyoming served as vice chairman. Ms. Eleanor Eck of the Montana Legislative Council served as permanent recording secretary for the task force.

Information Researched

An area of concern for the Fort Union Regional Task Force on Water Allocation and Quality Problems was that of relations with the nation of Canada and in particular the Province of Saskatchewan. Task force members invited representatives from the Province of Saskatchewan to participate in any and all meetings held by the Fort Union Regional Task Forces. Workings of the International Joint Commission on water related problems were discussed by the task force.

At the present time the major concern deals with a construction of a power plant close to the Montana border which will make use of approximately one-third of the water in the river. North Dakota has a minor problem with Canada regarding damming of waters. (See Appendix "H", page 511, for copy of the meeting minutes which detail the discussion on Canadian-American relations.) Although not discussed extensively by the task force, the North Dakota Garrison irrigation project is of concern to the Canadian government.

The task force membership was interested in federal-state relations with regard to water allocation and quality. Representatives from the United States Bureau of Reclamation were invited to testify on water allocation within the four states focusing on the following questions.

1. Who has the authority for allocation on an interstate and intrastate basis?

2. How was the water in the region presently allocated?

3. How much water remains to be allocated?

4. How is water allocated with regard to Indian lands?

The presentation by United States Bureau of Reclamation representatives is detailed in the second meeting minutes (Appendix "H", page 511). In discussing how much water there is in the Missouri River Basin and how it is presently allocated and how much water remains to be allocated, the United States Bureau of Reclamation presented the chart duplicated in Appendix "A", page 450.

The task force also reviewed federal water laws which affect the Fort Union region including the Federal Clean Water Act and the Safe Drinking Water Act. The Federal Clean Water Act sets a national goal of universal water quality by 1983. Not only is water quality to be maintained but all uses are to be viable uses.

The Water Allocation and Quality Problems Task Force requested that the Common Data Element and Information Exchange Task Force set up a continuous and updated information exchange between the four states regarding pertinent legislative action during the forthcoming legislative session. See Appendix "B", page 451, for a copy of this resolution. The Common Data Element Task Force has implemented such an exchange system.

The four states in the Fort Union Region exchanged studies completed within their respective state relative to water quality and quantity. Also, written materials relative to Indian water rights were distributed to the task force membership for reference material. The project coordinator will continue to monitor literature on water quantity, quality, rights, and uses which would be useful to the membership of the Water Allocation Quality Task Force.

During the task force meeting held in Pierre, South Dakota, the Bureau of Reclamation gave a slide presentation on the operation of the Oahe Reservoir and Dam complex, after which the task force toured the Oahe. The Oahe was built under the Pick-Sloan Missouri Basin Program in 1944 to minimize flooding; to provide water for navigation, irrigation, the production of electricity; and to develop better water supplies for industrial, municipal, and wildlife uses.

The Water Allocation and Quality Problems Task Force was very interested in Indian water rights and visited with Indian legal representatives to find many of the Indian water rights issues are now being decided in court. Few conclusions could therefore be reached relative to Indian water rights but the project coordinator will continue to monitor all relevant information for the task force. A presentation on Indian water law was made by Mr. Tom Schopert of the North Dakota Legal Services. He said water law is based on the three basic ideas of riparian rights, prior appropriation, and reserved rights. The Winter's Doctrine of 1908 gave Indians a reserved right to use as much water as needed unless excluded by treaty or Act of Congress. The Winter's Doctrine is the basic law upon which Indian water rights are now being determined. The Winter's Doctrine articulated the concept of Indian tribes giving land to the United States in return for present and future beneficial use of all waters running through their reservation. The water can be applied to any use that the reservation tribes believes to be most beneficial. See copy of minutes from the second meeting for further discussion on Indian water rights. (Appendix "H", page 511.)

A major question of the task force was whether or not the Environmental Protection Agency (EPA) had legal authority to enforce state water quality standards which were higher than the federal standards. It was learned that the EPA does not have this authority.

The Environmental Protection Agency has prepared an analysis and comparison of the parameters of water quality within the four states and Indian reservations. For a copy of this report, see the project coordinator.

A report produced by EPA relative to Indian rights with respect to air quality, water quality, water allocation, taxation, etc., can be found in the appendices for the Air Quality Task Force Final Report.

Also exchanged were the water pollution control laws and their accompanying standards, rules, and regulations from each of the four states.

Slurry transportation systems were investigated by the Water Allocation and Quality Problems Task Force. Mr. W. Pat Jennings of the Slurry Transportation Association presented facts and figures on slurry pipelines in general. Focusing on the success of the Black Mesa Pipeline in Arizona, Mr. Jennings showed a film on the life of this pipeline. Further questions with regard to relative costs between slurry pipelines and railroads were asked of Mr. Jennings. (See appendix to minutes of third meeting for copy of Mr. Jennings' presentation.) See Appendix "C", page 453, for further cost analysis supplied to the task force by Mr. Jennings. Mr. Frank Odasz of Energy Transport Systems, Inc., Casper, Wyoming, made a presentation specifically addressing the proposed Wyoming to Arkansas pipeline. See Appendix "D", page 455, for copy of slides used by Mr. Odasz in his presentation.

Additional comments made by Mr. Jennings not included in his written presentation were:

1. A coal slurry is one-half water, one-half coal.
2. No water is discharged back into a stream, rather the water used in the slurry is recovered and used in the stream generating or cooling process.
3. Water spun off from the pipeline is cleaner than the water originally put into the slurry.
4. Only one-seventh of the water needed in a "standard" steam generation plant is needed for slurry pipelines.
5. Pneumatic transportation of coal, i.e., transporting coal through pipelines other than with water mixture is being researched but is only in the experimental stage.
6. The life of a pipeline is longer than most plants.

The railroad also submitted cost figures for transporting coal in order for the task force members to compare and evaluate railroads versus slurry pipelines in transporting coal. (See Appendix "E", page 491, for railroad statistics.)

The Water Allocation and Quality Problems Task Force also heard from technical water experts in each state relative to their state's water quality standards. See minutes of the third meeting for a summary of state water quality standards for the Fort Union states. (Appendix "I", page 511.)

The task force is also interested in becoming familiar with information sources. The project coordinator will continue to make contacts with all known water information resource persons and agencies.

In response to the Common Data Element and Information Exchange Task Force request for definitions of common data terms relative to water allocation and water problems (see Appendix "F", page 506, for copy of this resolution), the Water Allocation and Quality Problems Task Force sent the four states' rules, regulations, and laws to the Common Da

Element Task Force. If conflicts arise Chairman McOmber will be on hand to help the Common Data Element and Information Exchange Task Force. The Water Allocation and Quality Problems Task Force suggested that the Common Data Element Task Force adopt federal definitions relating to federal water allocation and quality.

The task force gives recognition to the following interstate organizations which provide a means of communication on water related concerns: Missouri River Basin Commission, Old West Regional Commission, and the Missouri River Main Stem Reservoir Coordinating Committee.

See Appendices "G", page 507, "H", page 511, and "I", page 519 for the first, second, and third meeting minutes respectively.

Recommendations and Actions

1. Statement of sentiment:

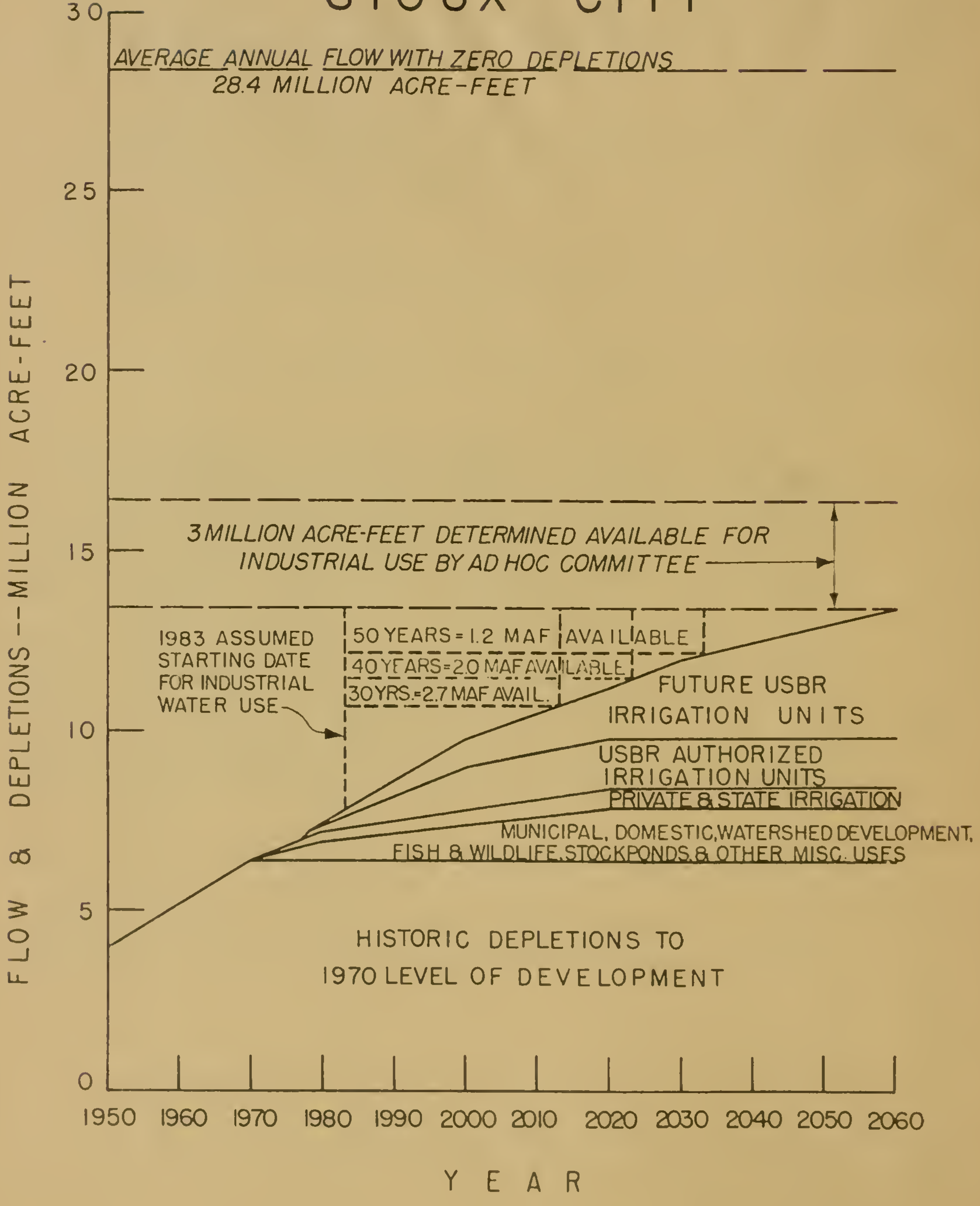
   The task force expressed appreciation for the opportunity to continue discussing common concerns through the use of federal grant moneys. Those granting federal funds were notified of the task force's wishes to continue communication, with the North Dakota Legislative Council acting as the central agency for coordinating and reviewing further concerns of the four states. All federal agencies involved in water quality or water allocation have been asked to notify the Fort Union Regional Task Force on Water Allocation and Quality Problems of any new determinations or directives in their areas of concern. The Fort Union coal area states of North Dakota, South Dakota, Montana, and Wyoming unanimously agree that it is of prime importance to the development of the Fort Union Coal Formation that the states involved maintain their prerogatives over water and water rights within the region without federal encroachment.

2. Request to the legislative service agencies: (see Appendix "J", page 554.)

3. Request by the task force to the North Dakota Legislative Council to continue as coordinating body for the continuing Fort Union Regional Task Forces.

APPENDIX "A"
Supplied by Bureau
of Reclamation

MISSOURI RIVER
AT
SIOUX CITY



APPENDIX "B"

A RESOLUTION OF THE
WATER QUALITY AND ALLOCATION TASK FORCE

BE IT RESOLVED, that the Fort Union Regional Task Force on Common Data Element and Information Exchange be asked to set up a continuous and updated information exchange between the four states of North Dakota, South Dakota, Montana, and Wyoming regarding pertinent legislative action during the forthcoming legislative session.

APPENDIX "C"

SLURRY TRANSPORT ASSOCIATION

490 L'Enfant Plaza East, S.W., Suite 3210
Washington, D. C. 20024 • Telephone (202) 554-4700

Milton L. Williams
Chairman of the Board

W. Pat Jennings
President

J. V. Chambers
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Harold Price
Chairman and C E O
H. C. Price Co

C. T. Wells
President
Gulf Interstate Co

Milton L. Williams
Vice President
Kansas Nebraska Natural Gas Co

October 29, 1976

Ms. Sheila Miedema
Project Coordinator
Fort Union Regional Task Forces
North Dakota Legislative Council
State Capitol
Bismarck, North Dakota 58505

Dear Sheila:

During the meeting of the Task Force on Water Allocation and Quality Problems in Cheyenne, Wyoming, on October 11, I spoke of the success of a coal slurry pipeline in Ohio in reducing rail freight charges for coal from a high of $3.47 a ton to $1.88, and I was asked to provide the cost of pipeline-delivered coal.

The best estimate I can obtain is that the pipeline rate was about $1 a ton less than the railroad charge or something in the neighborhood of $2.50 a ton.

The Ohio pipeline was built and paid for by the Consolidation Coal Company of Pittsburgh, Pa., and that company has not published the precise charges. The Chairman of the Consolidation board, Mr. George H. Love, was asked, during testimony before a Senate Committee in 1962, to compare pipeline rates with those of the railroads. In response, he noted the private nature of the line, but said "We thought there would be a saving of $1 a ton in going from Southern Ohio to Cleveland and it turned out there is approximately that saving." He noted that since the opening of the line the railroad rate had been reduced about $1 to put them on a parity with pipeline charges.

A year later, the Oil and Gas Journal of May 13, 1963, reported:

> "The railroads slashed their rates to Cleveland Electric to $1.88 a ton, 61 cents under the previous rate. This would be well under the pipeline costs, reported to be in the range of $2.47 to $2.65 a ton."

That 1963 news report said the rate reduction was "precipitated by the announcement of plans to build a coal slurry line from Western Pennsylvania and West Virginia to the East Coast."

And that was the point I wish to make: Rail freight rates rose unchecked without competition, but the introduction of another mode of transportation forced the introduction of improved, efficient rail operations to the benefit of all concerned. The free enterprise system can and does work, if competition is not artifically stifled.

I enjoyed the privilege of meeting with both task forces and hope they learned at least half as much from me as I did from them.

With best wishes, I am

Sincerely,

Pat

W. PAT JENNINGS
President

APPENDIX "D"
Prepared by Frank
Odasz, Energy
Transportation, Inc.

ETSI/COAL SLURRY TRANSPORTATION

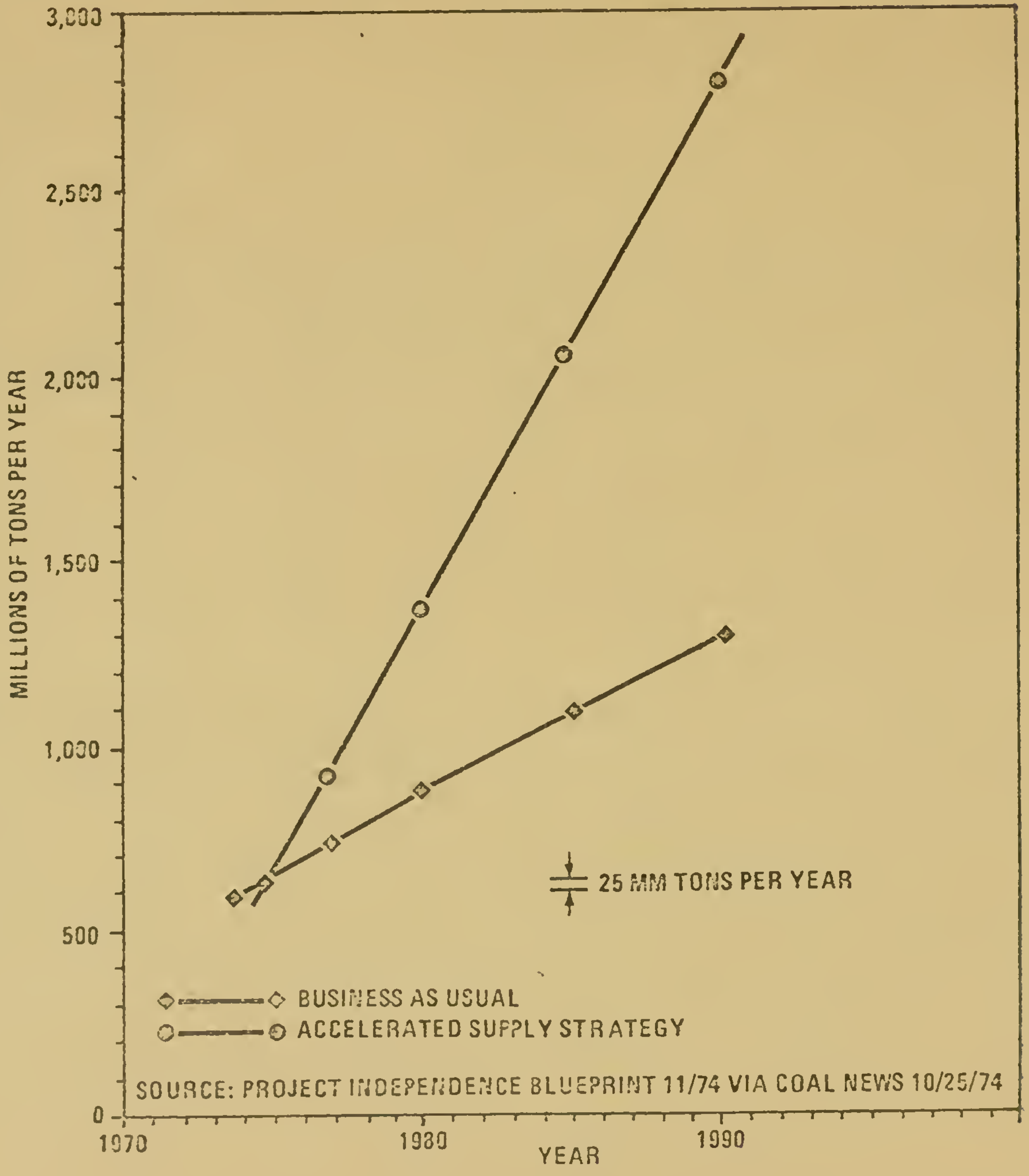
WHY COAL DEVELOPMENT?

- 5.5-FOLD INCREASE IN CRUDE OIL COST*
- REDUCED AVAILABILITY OF U.S. GAS AND OIL
- DEFICITS IN U.S. FOREIGN BALANCE OF PAYMENTS
- TOUGHER SO_2 EMISSION SPECIFICATIONS
- DELAYS IN NUCLEAR PLANT CONSTRUCTION

*October 1, 1975

ETSI/COAL SLURRY TRANSPORTATION

PROJECTED COAL DEMANDS IN U.S.A.

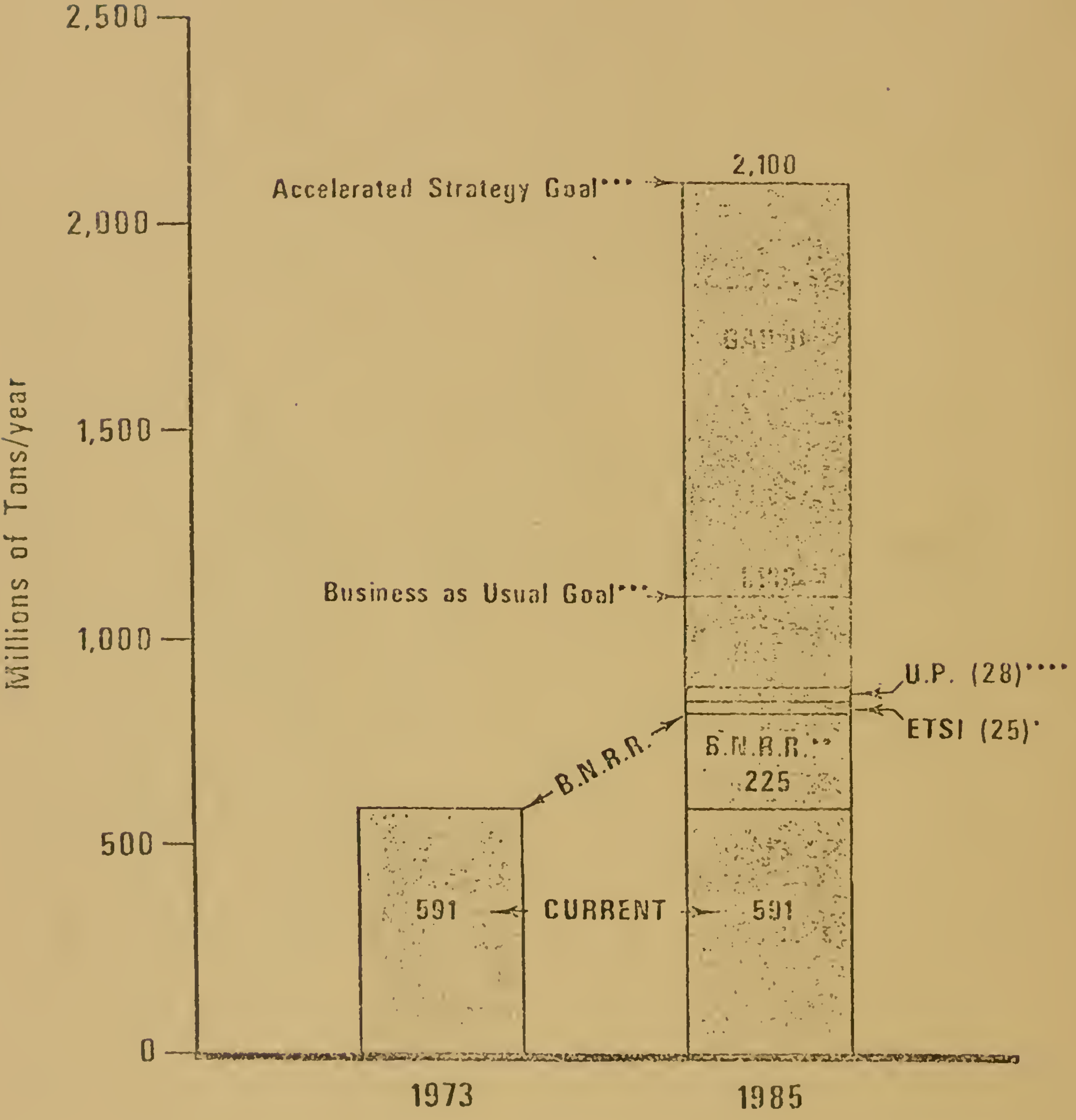


SOURCE: PROJECT INDEPENDENCE BLUEPRINT 11/74 VIA COAL NEWS 10/25/74

1047-B

ETSI/COAL SLURRY TRANSPORTATION

GAPS EXIST TO MEET U.S. GOALS



* J. H. Olson, President of Energy Transportation Systems, Inc.

** L. W. Menk, Chairman of Burlington Northern R.R.

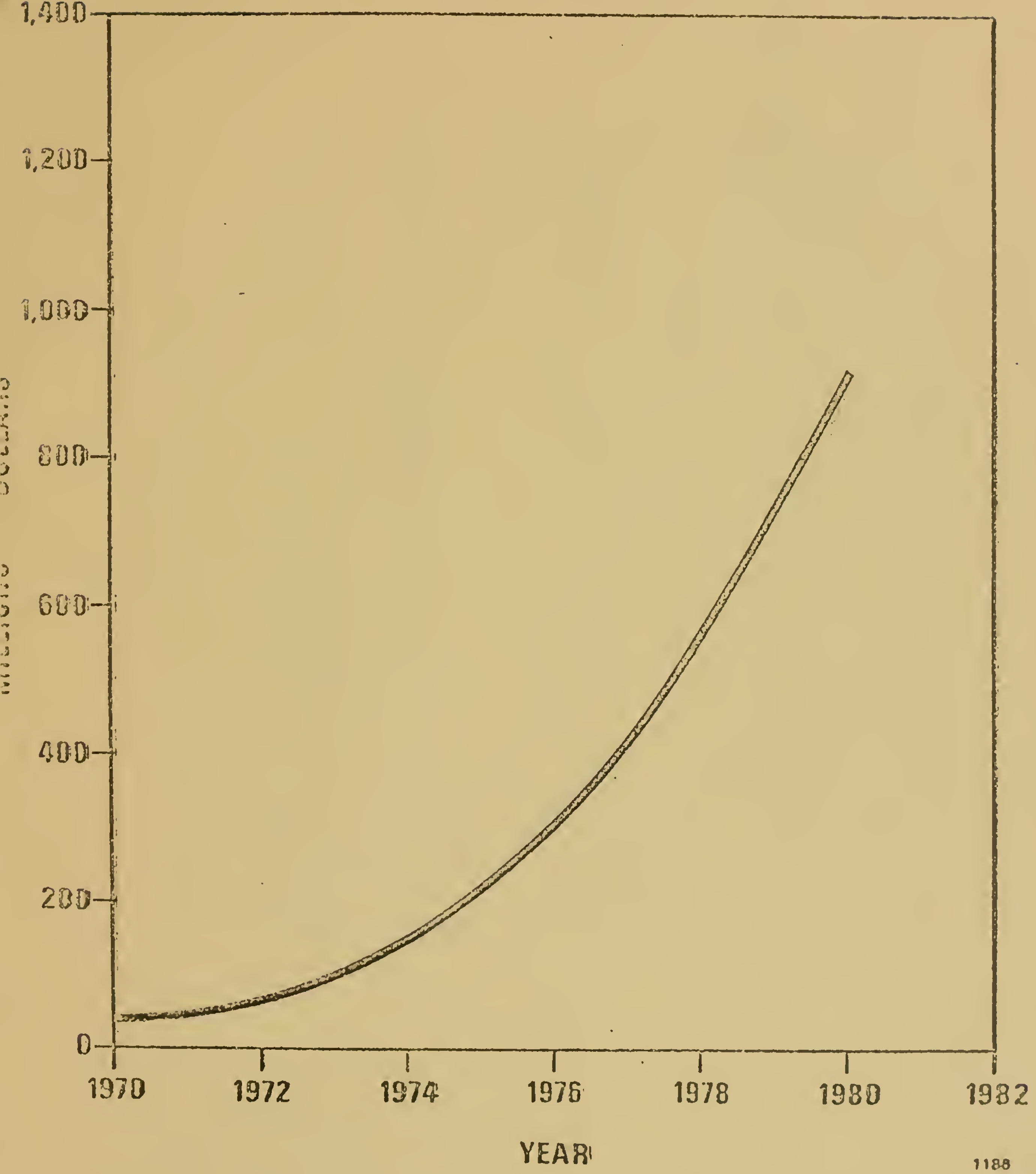
*** Project Independence Blueprint 11/74

**** Testimony to Nebraska Public Works Committee, September 29, 1975

ETSI/COAL SLURRY TRANSPORTATION

COAL REVENUE PROJECTIONS

BURLINGTON NORTHERN R.R.
(L. W. Menk, Chairman)



ETSI/COAL SLURRY TRANSPORTATION

STATEMENTS TO SELECTED AUDIENCES

(By L.W. Menk, Chief Exec. Officer of Burlington Northern Inc.)

To Congress

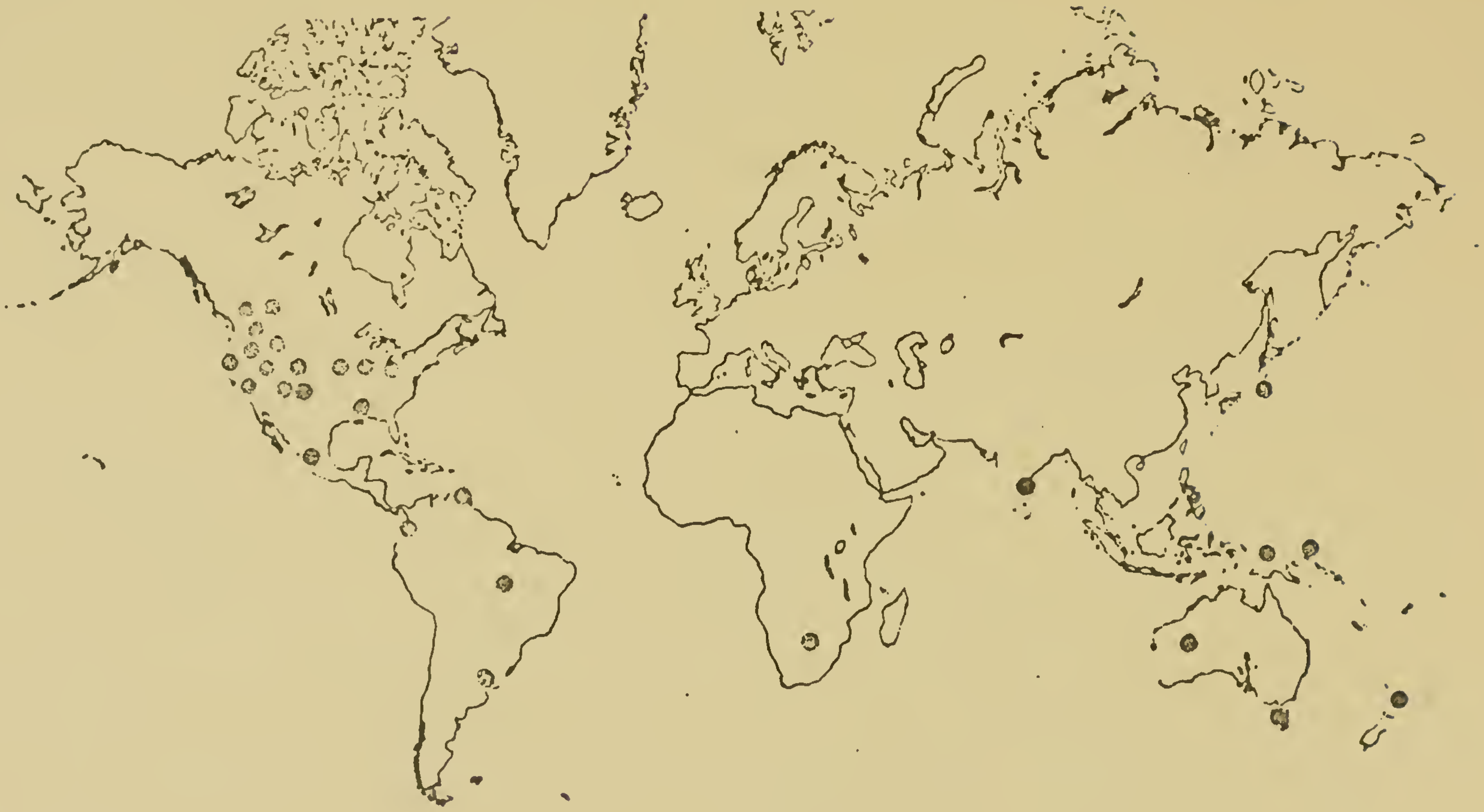
Even a threat of one coal slurry pipeline is a financing handicap. (Hearings - 11/7/75)

To Investors

Our coal leases retain an option to acquire up to 50% ownership in coal pipelines. (B.N. Annual Report - 1971)

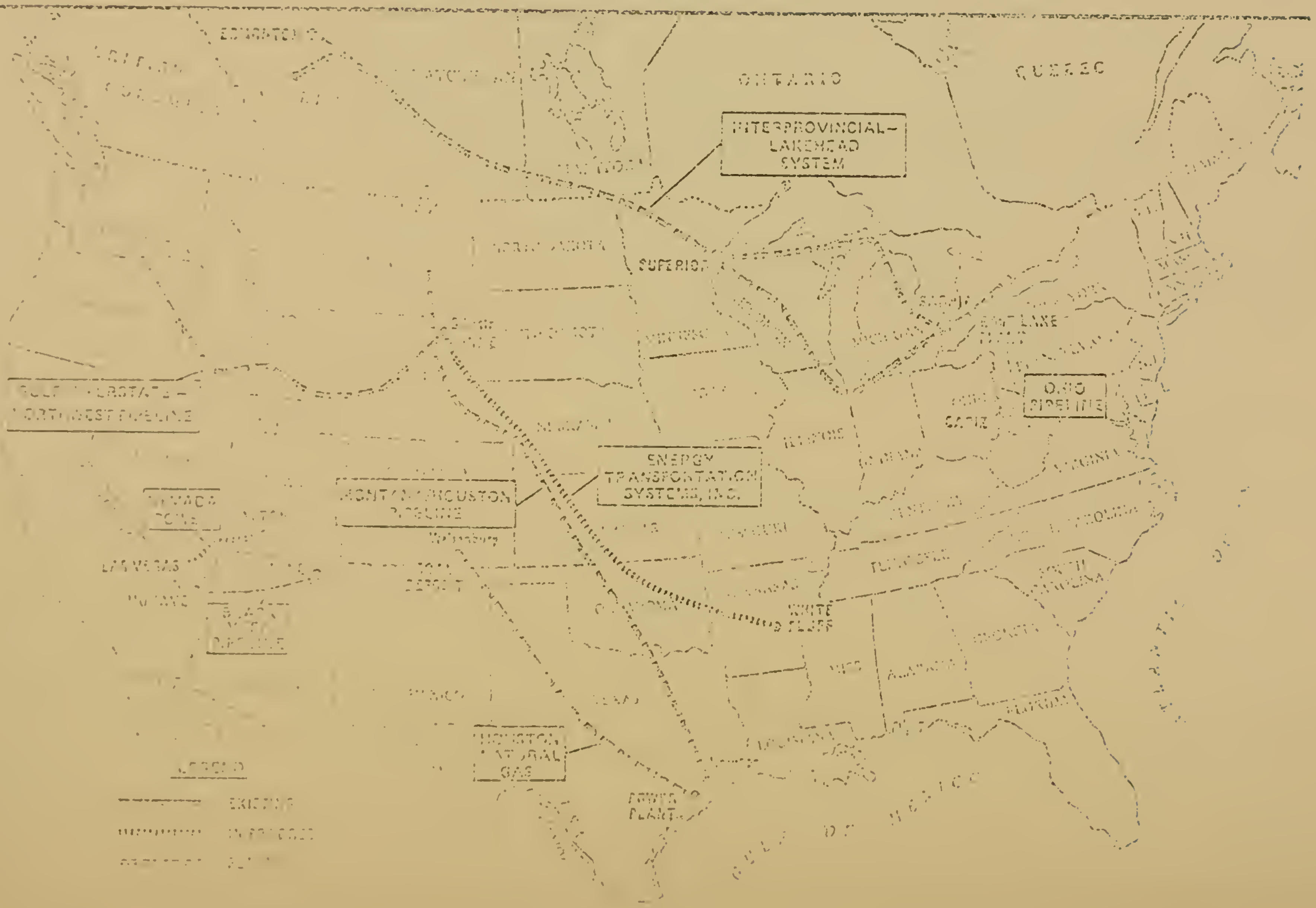
Between 1970 and 1980 B.N.'s coal revenues will grow more than 20 times from $42 million to $900 million. (Coal Conference, New Orleans, March 1976)

WORLDWIDE SLURRY PROJECTS



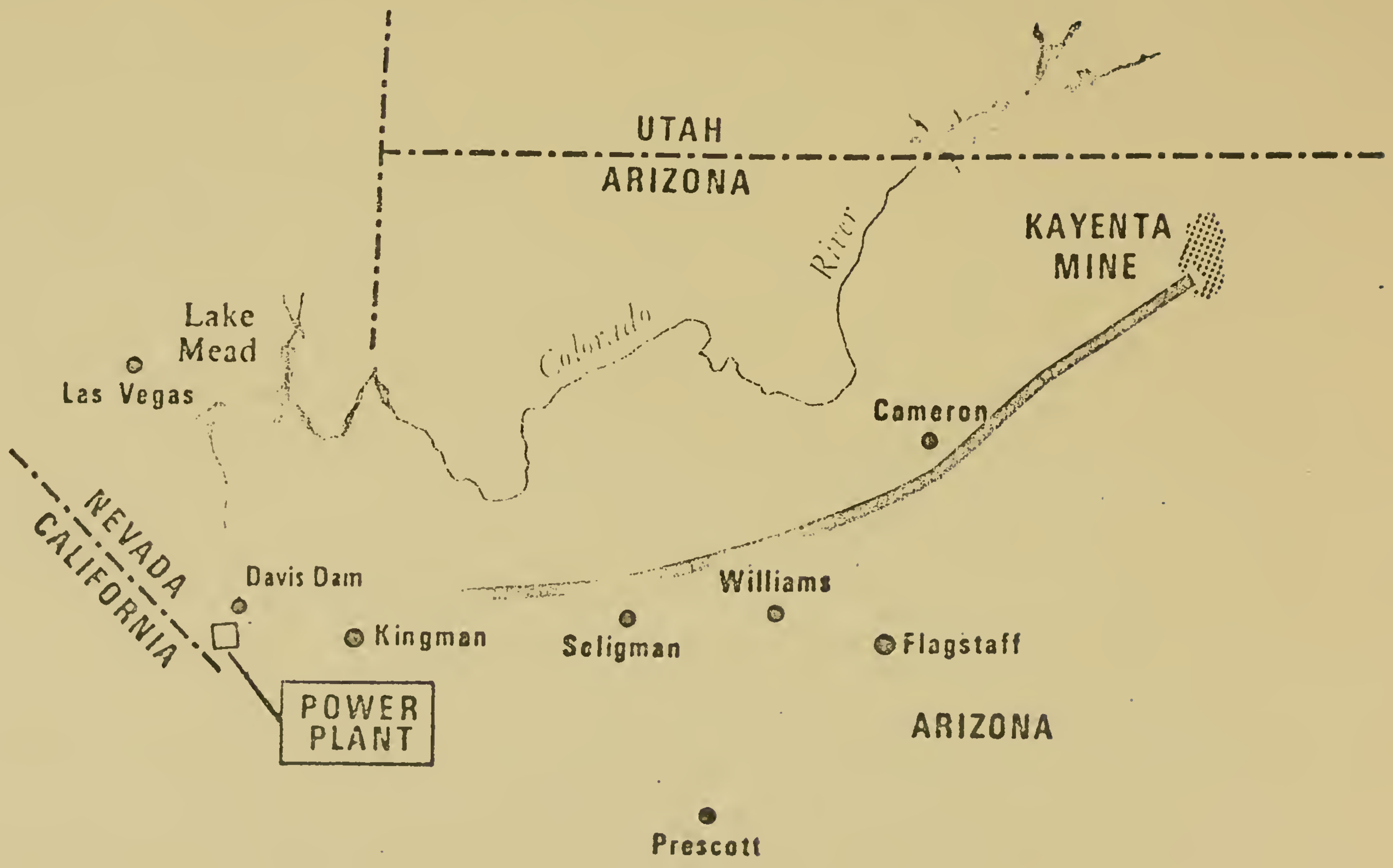
COAL SLURRY TRANSPORTATION

COAL SLURRY PIPELINES



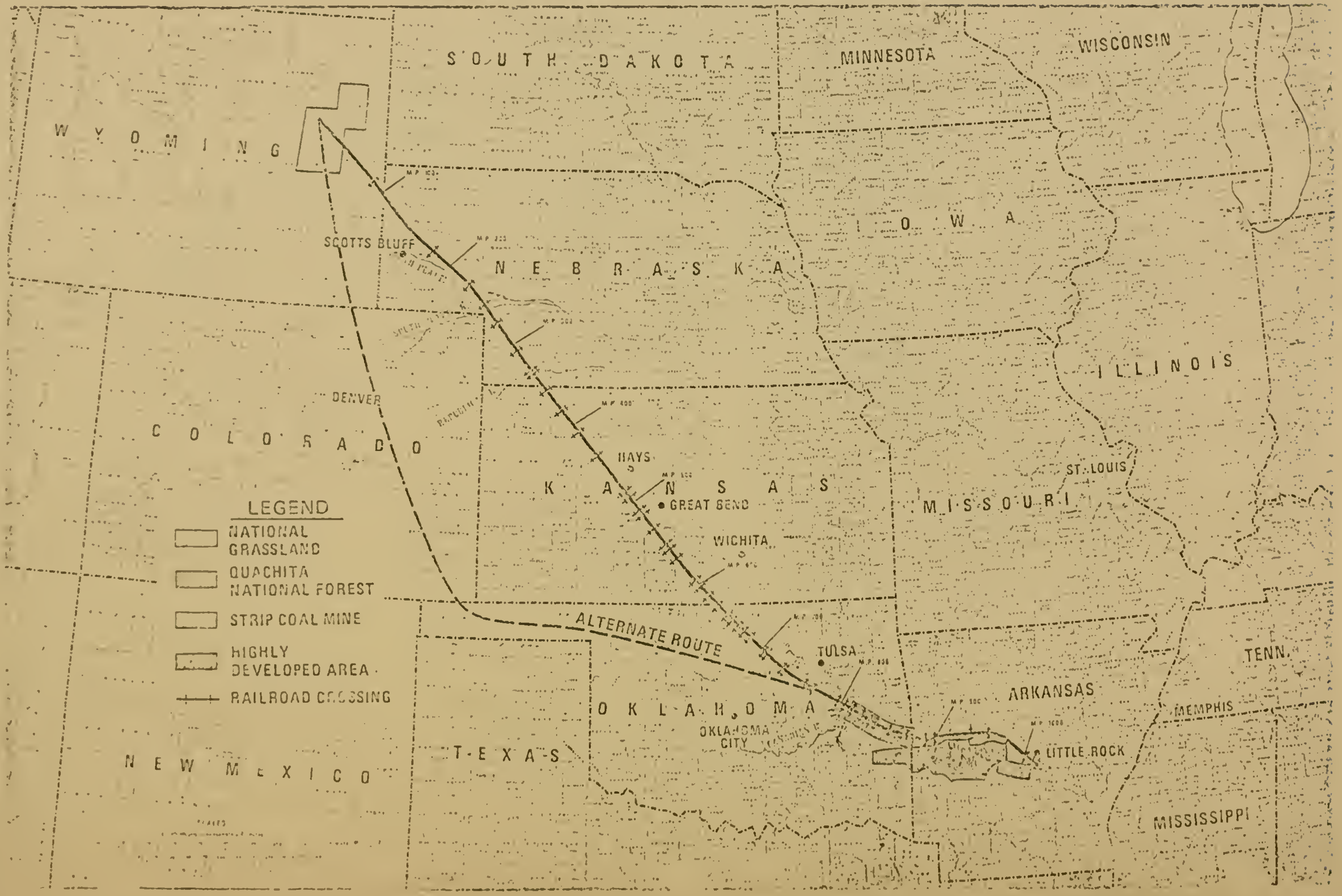
ETSI/COAL SLURRY TRANSPORTATION

BLACK MESA PIPELINE



ETSI/COAL SLURRY TRANSPORTATION

PRELIMINARY PIPELINE ROUTE



ETSI/ SLURRY [illegible]IATIO

ADVANTAGES OF SLURRY PIPELINES

FOR WYOMING

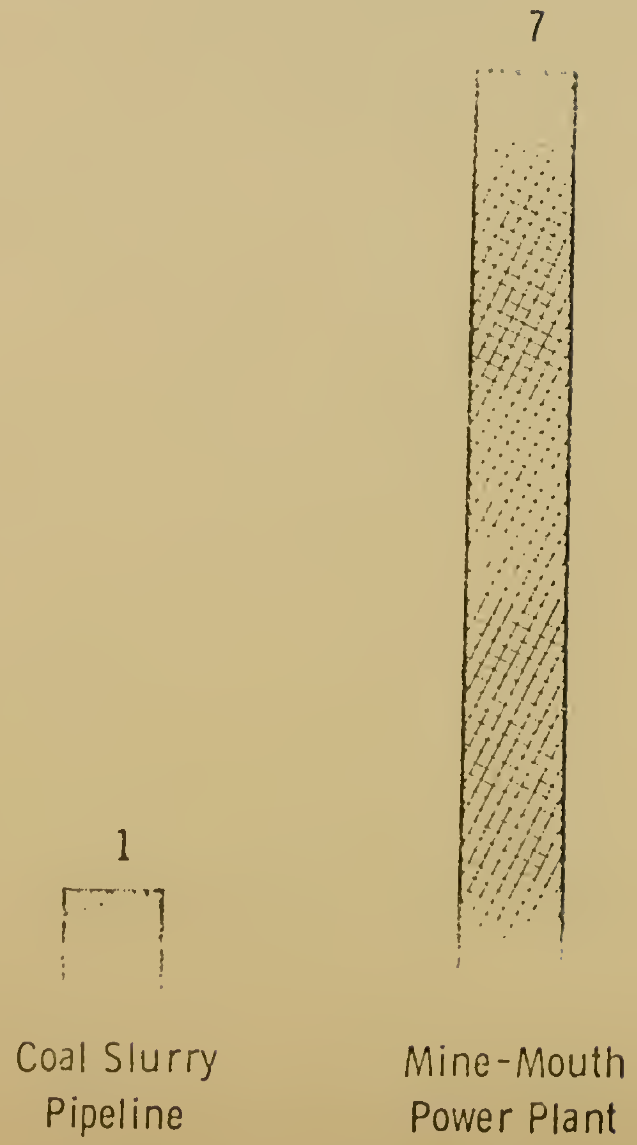
- Environmental
- Water Conservation
- Ideal Labor Requirements
- Revenue Exceeds cost of Impact

FOR THE NATION

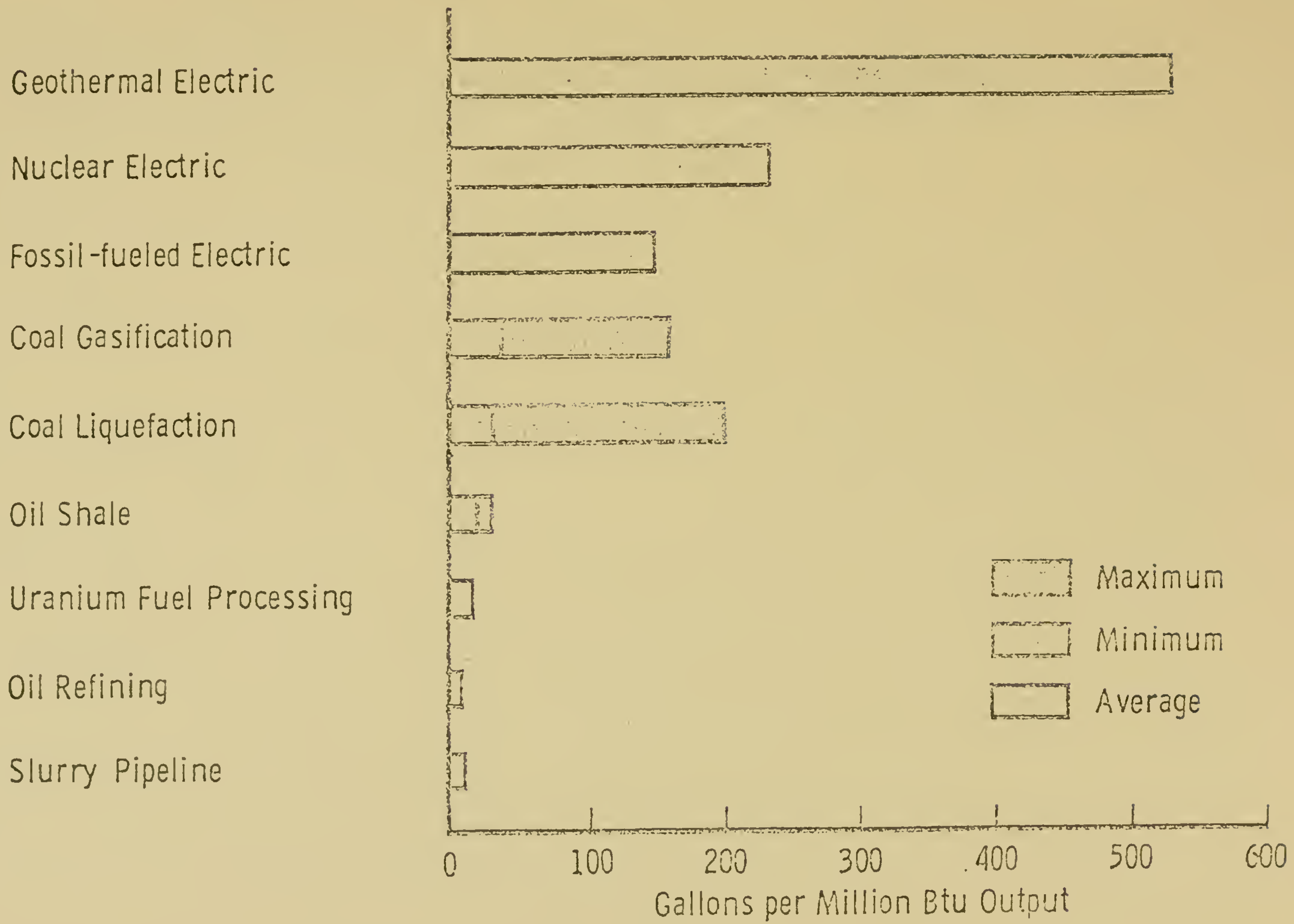
- Energy Savings
- Economic Savings
- Balance of Payments

ETSI/COAL S[illegible] RR [illegible] [illegible]ATION

RELATIVE WATER CONSUMPTION

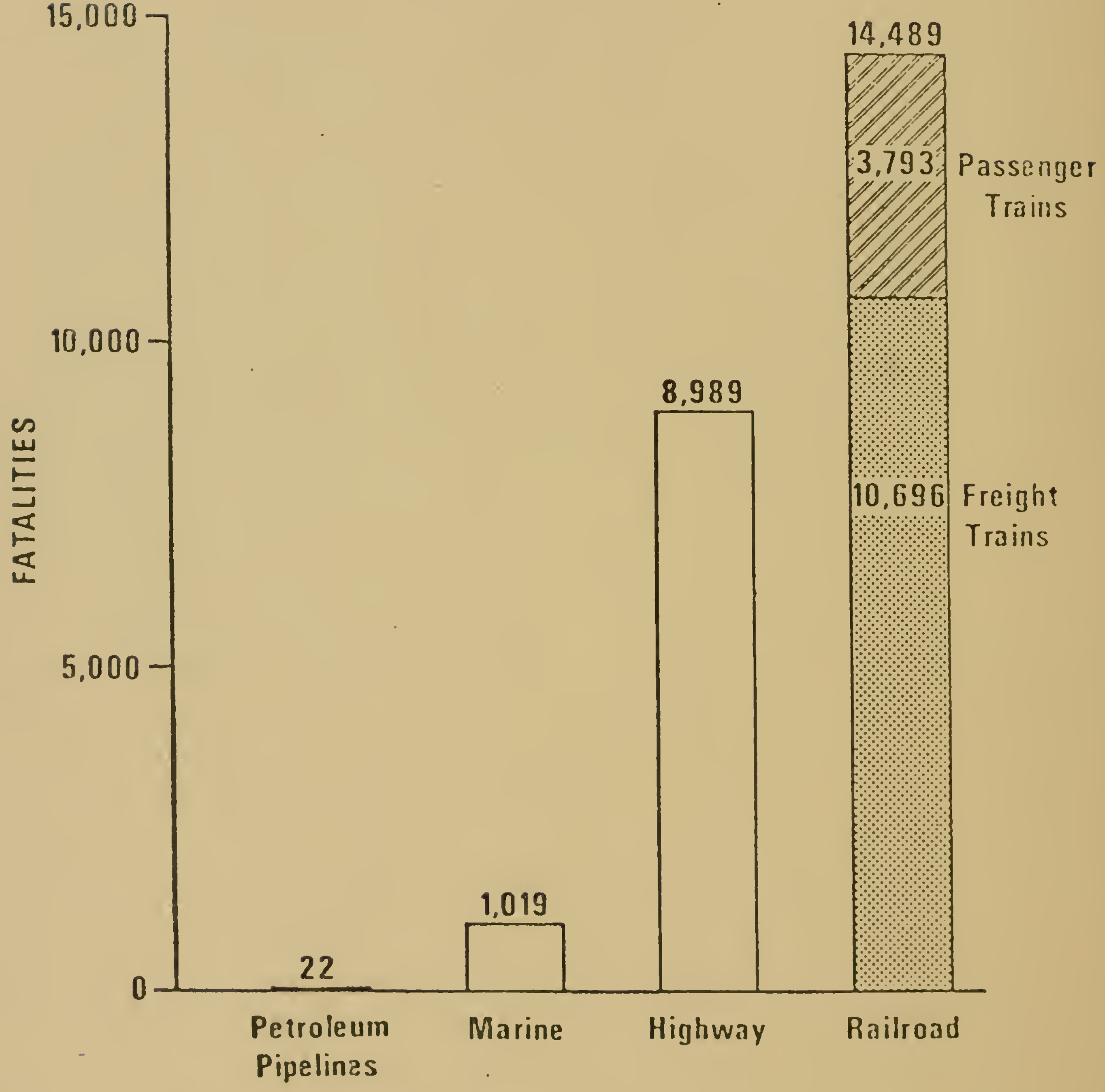


WATER REQUIRED FOR ENERGY PROCESSES



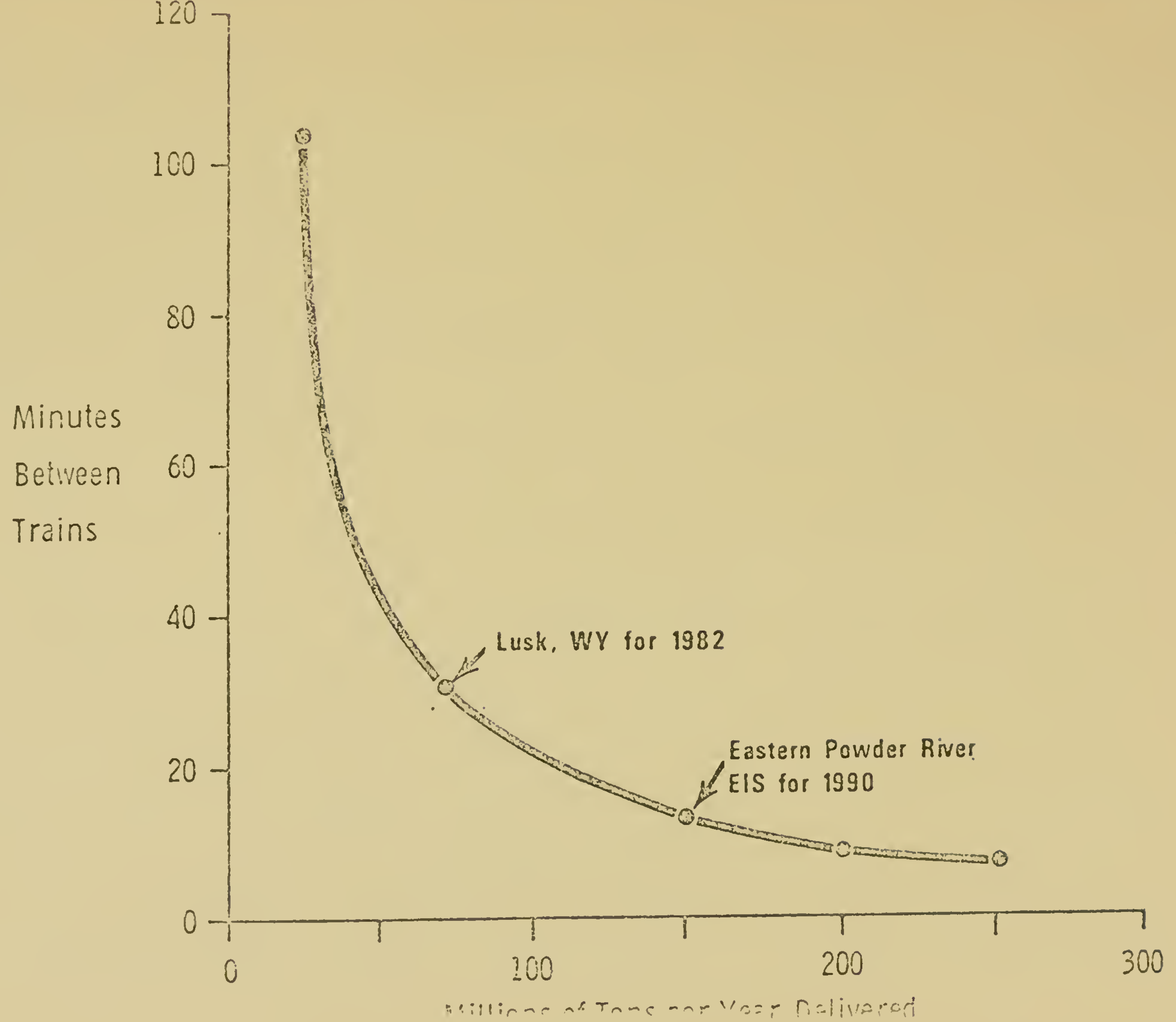
Source (Except Slurry Pipeline): USGS Circular 703

FATALITIES FOR SURFACE FREIGHT TRANSPORTATION (Period 1963-1968)



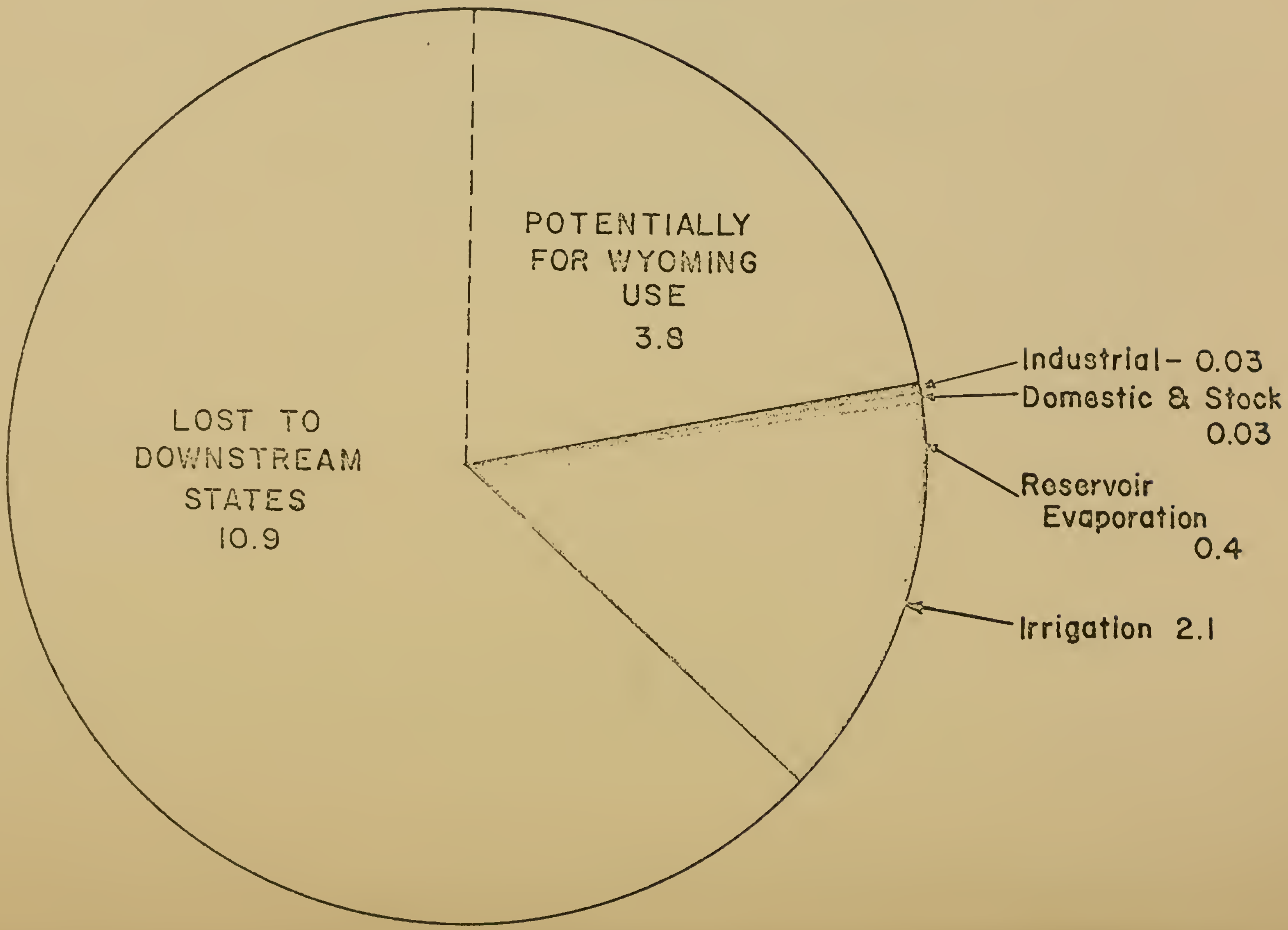
*NATIONAL TRANSPORTATION SAFETY BOARD

PIPELINES AVOID RAILROAD TRAFFIC AND NOISE PROBLEMS



WYOMING'S "USE IT OR LOSE IT" WATER STATUS

(Millions of AF/Yr.)



EIS / [illegible] SLU[illegible] T[illegible] [illegible]ATION

HOW MUCH WATER IS REQUIRED ?

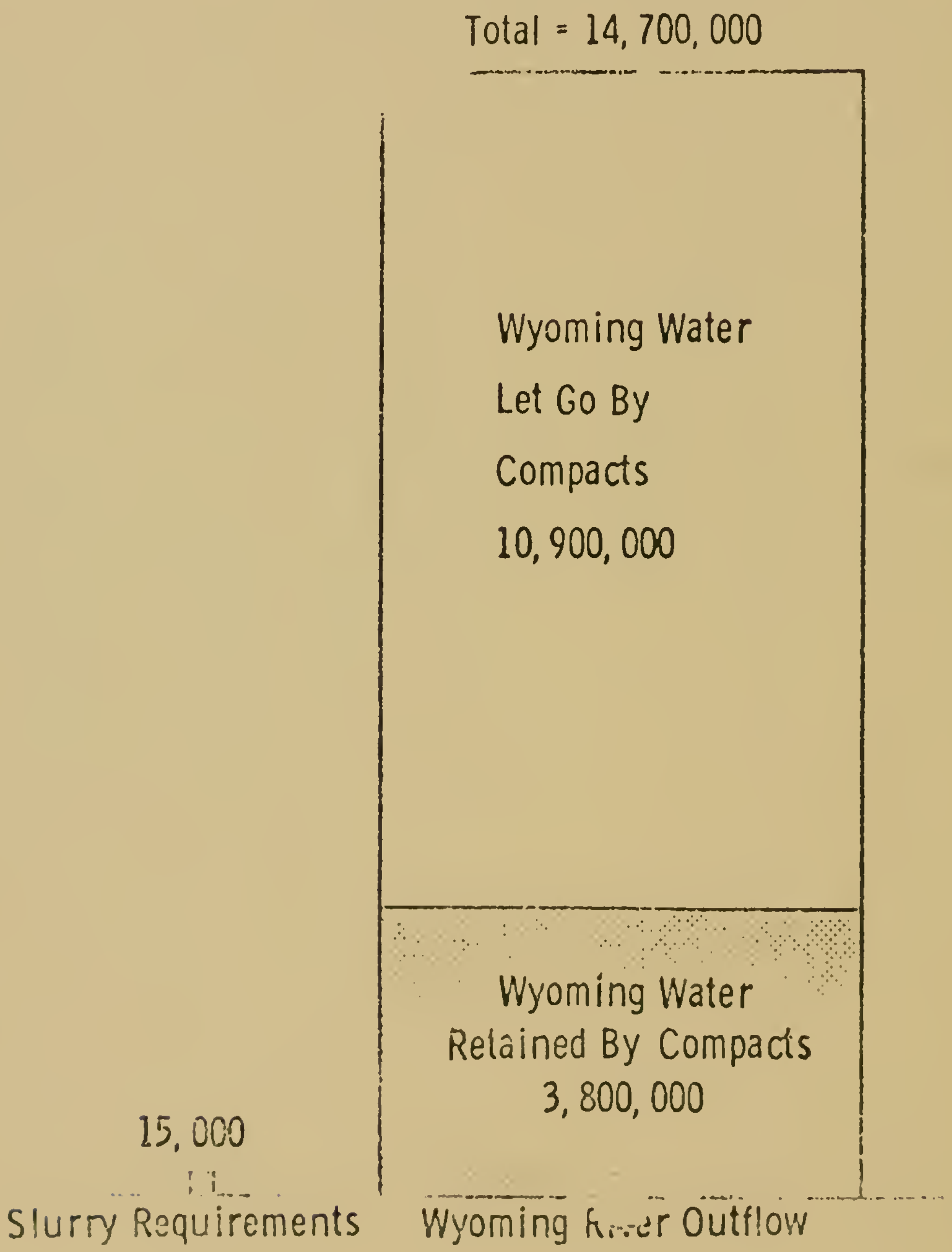
(Flow Rates)

- 15,000 AF/Yr
- 20.7 CFS
- 9,300 gpm

ETSI/COAL SLURRY TRANSPORTATION

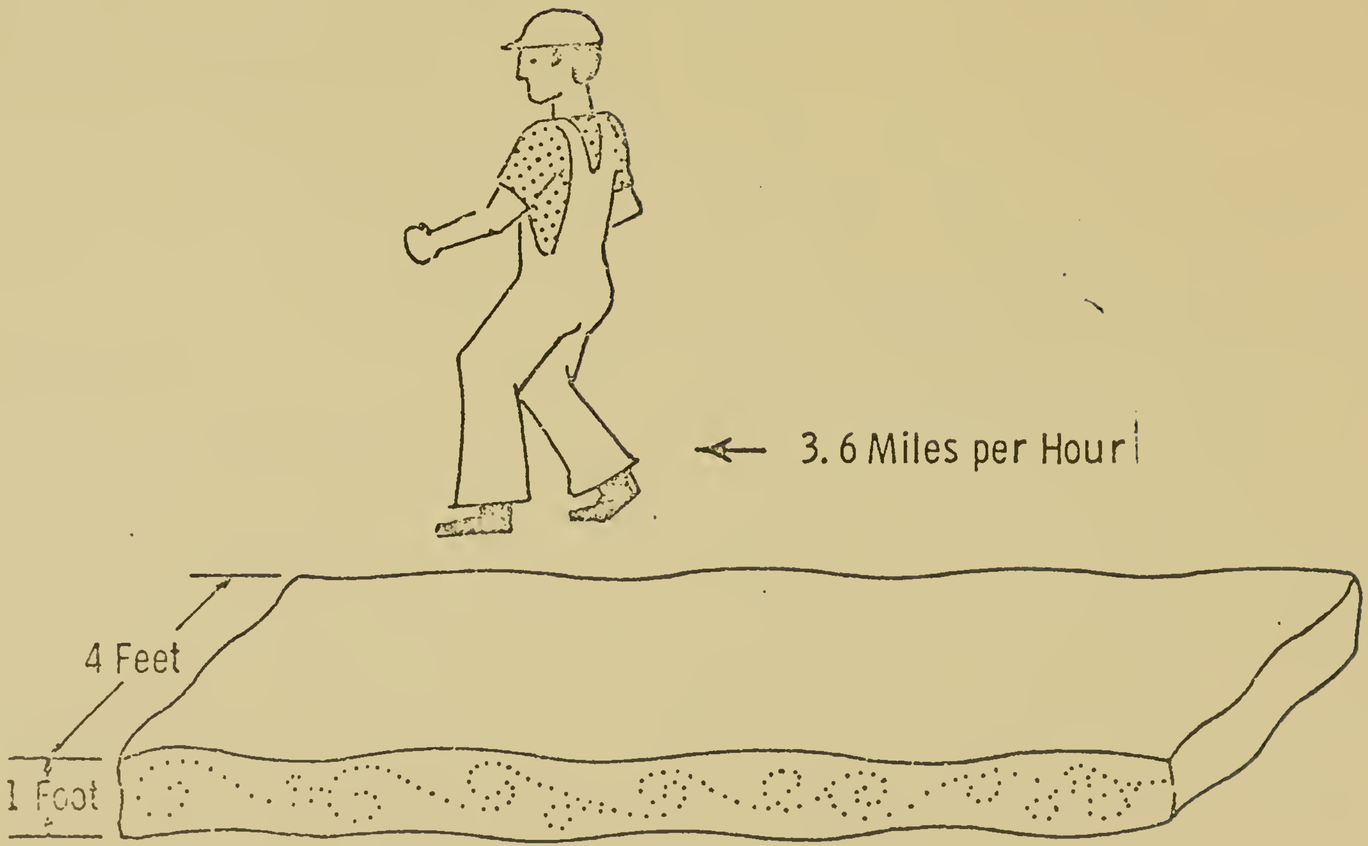
HOW DOES SLURRY WATER COMPARE ?

(Acre-Feet Per Year)

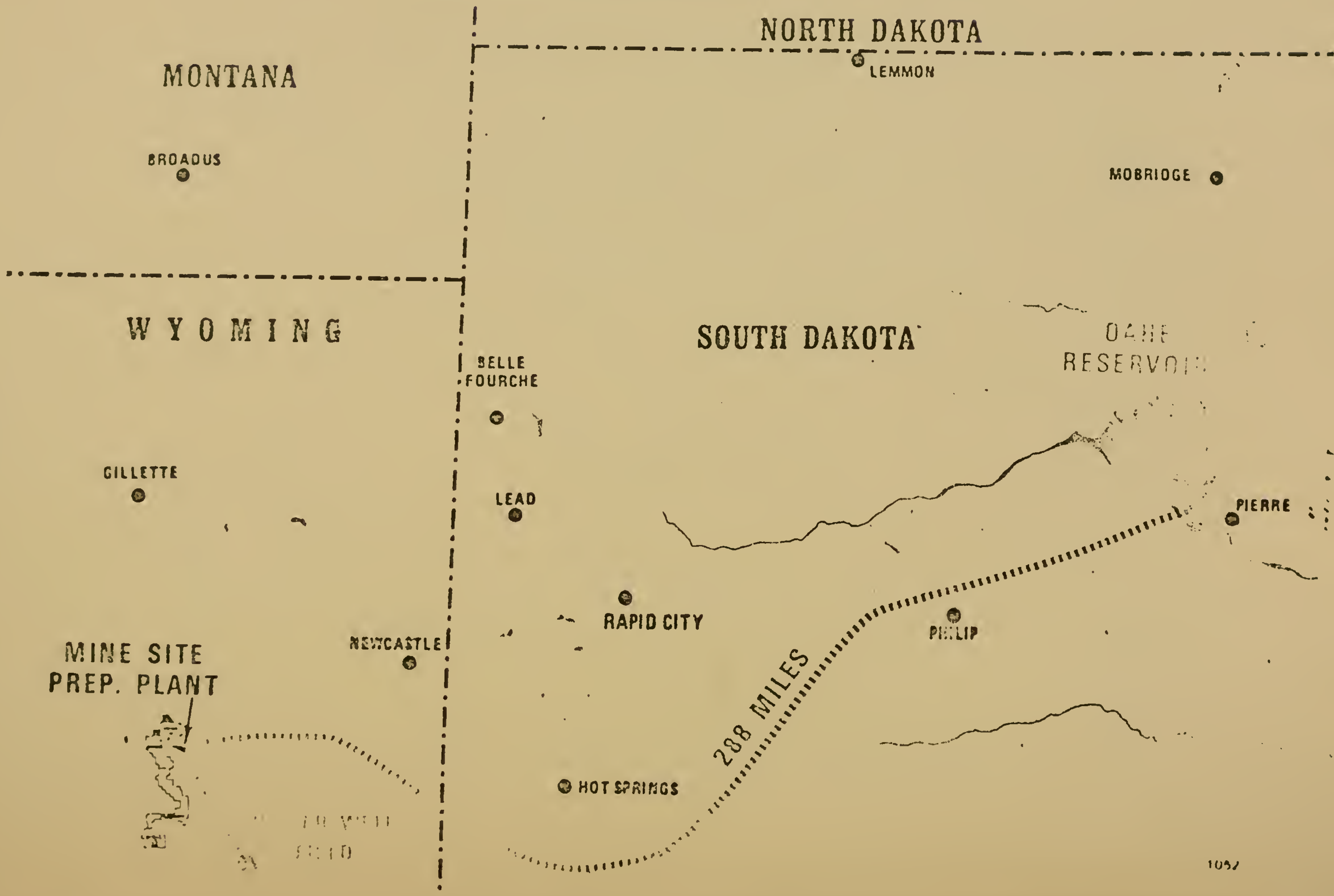


ETSI

HOW MUCH WATER IS REQUIRED ?

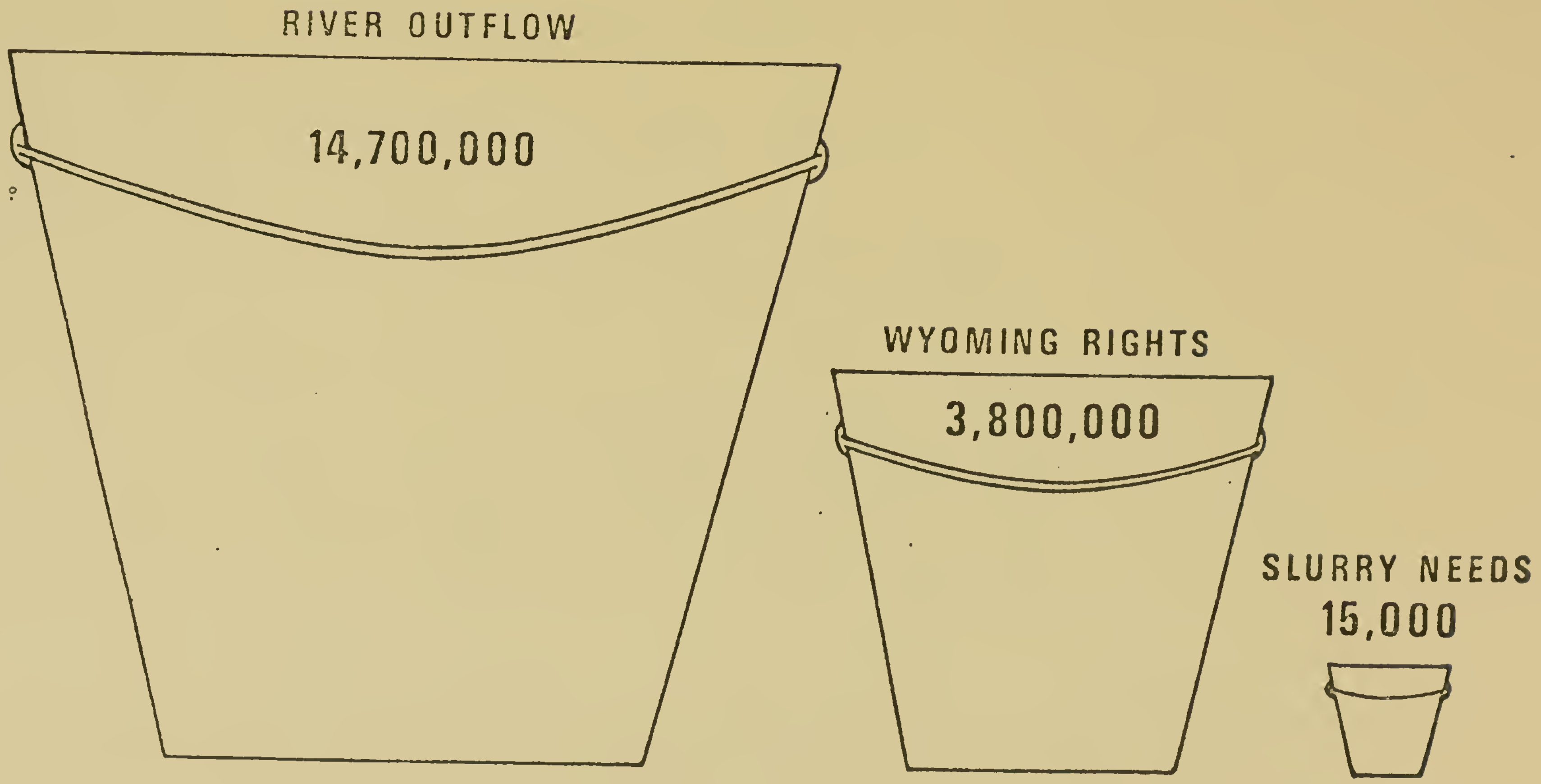


FUTURE WATER SOURCE FROM OAHE



SLURRY NEEDS ARE A DROP IN THE BUCKET

(Acre-feet of water per year)

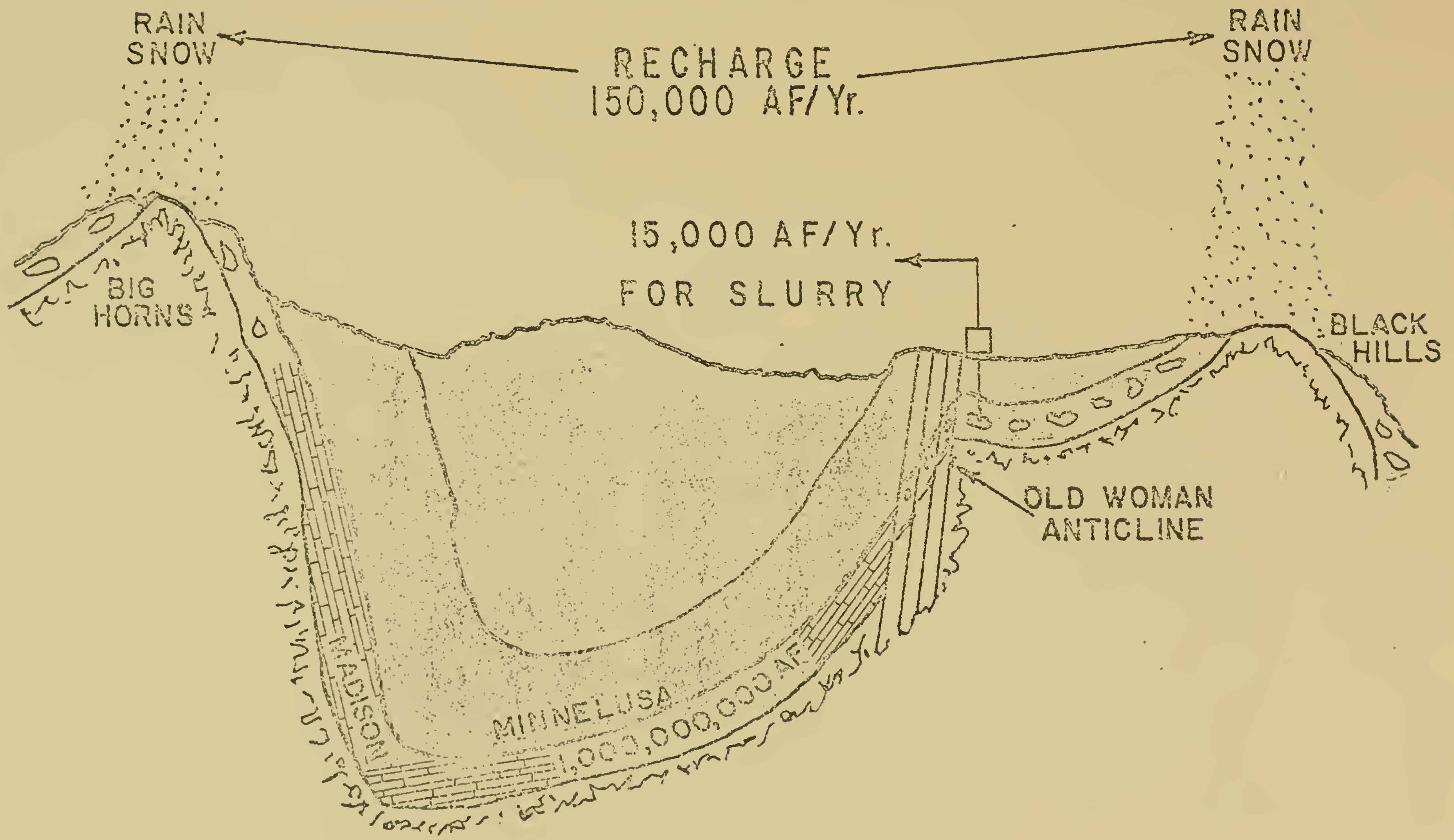


ETSI/COAL SLURRY TRANSPORTATION

WILL WITHDRAWAL AFFECT OTHER USERS?

- No - Due to Physical Conditions
- No - Due to Legal Protections
- No - Due to Economics

POWDER RIVER BASIN - WYOMING



ETSI/COAL SLURRY TRANSPORTATION

LEGAL PROTECTION FOR USERS OF UNDERGROUND WATER

1 - Enrolled Act No. 10, Senate

- Deepen wells and pay pumping costs, or
- Provide equal quantity of suitable water, or
- Find a different source of water, or
- Cease and Desist

2 - Wyoming State Engineer

- All of the above, and
- Post $1,000,000 bond, and
- Guarantee priority to eight cities, and
- Require five monitoring wells

3 - ETSI Management

- Agree to the above terms for Wyoming, and
- Avoid irrigation water

ETSI/COAL SLURRY TRANSPORTATION

COMPARISON OF WATER COSTS

	Cost of Irrigation Water	
	Shallow Well	Deep Well
DEPTH (FEET)	800	3400
CAPACITY/WELL	1000 gpm	200gpm
INVESTMENT	$20,000	$200,000
COST/AF USED	$8	$400*

* Cost would be $130/AF if well used all year round as would be case for pipeline use. Irrigation was assumed 4 months/year.

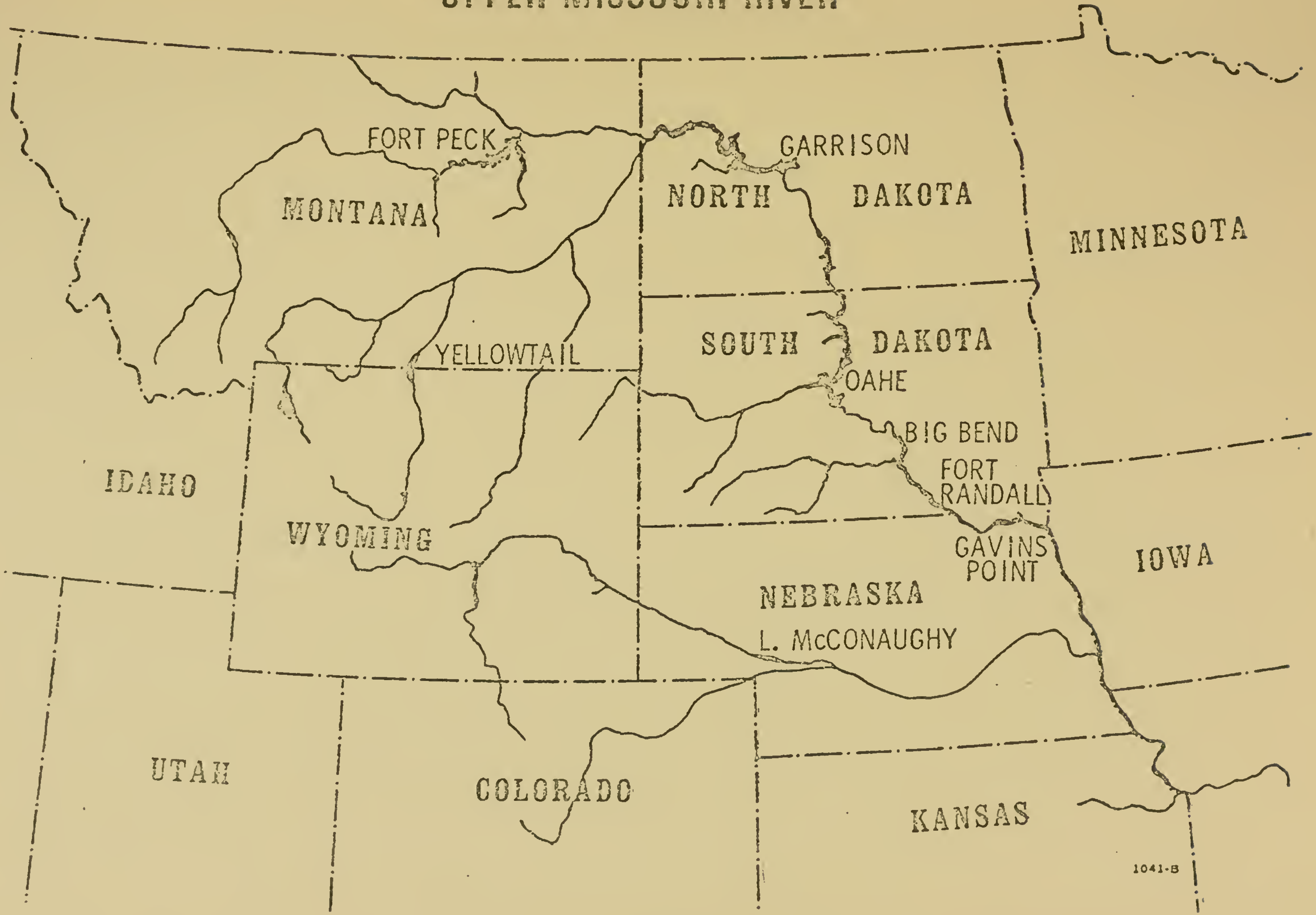
ETSI

ALTERNATE WATER SOURCES

(25, 000, 000 TPY LINE)

Source	Pipeline Distance (miles)	Water Cost		
		$/Acrefoot	¢/Ton	M$/Yr.
WELL FIELD	70	400	27	6.7
OAHE DAM	288	1200	81	20.2
RECYCLE LINE	1035	3500	230	52.7

ETSI/COAL SLURRY TRANSPORTATION
UPPER MISSOURI RIVER

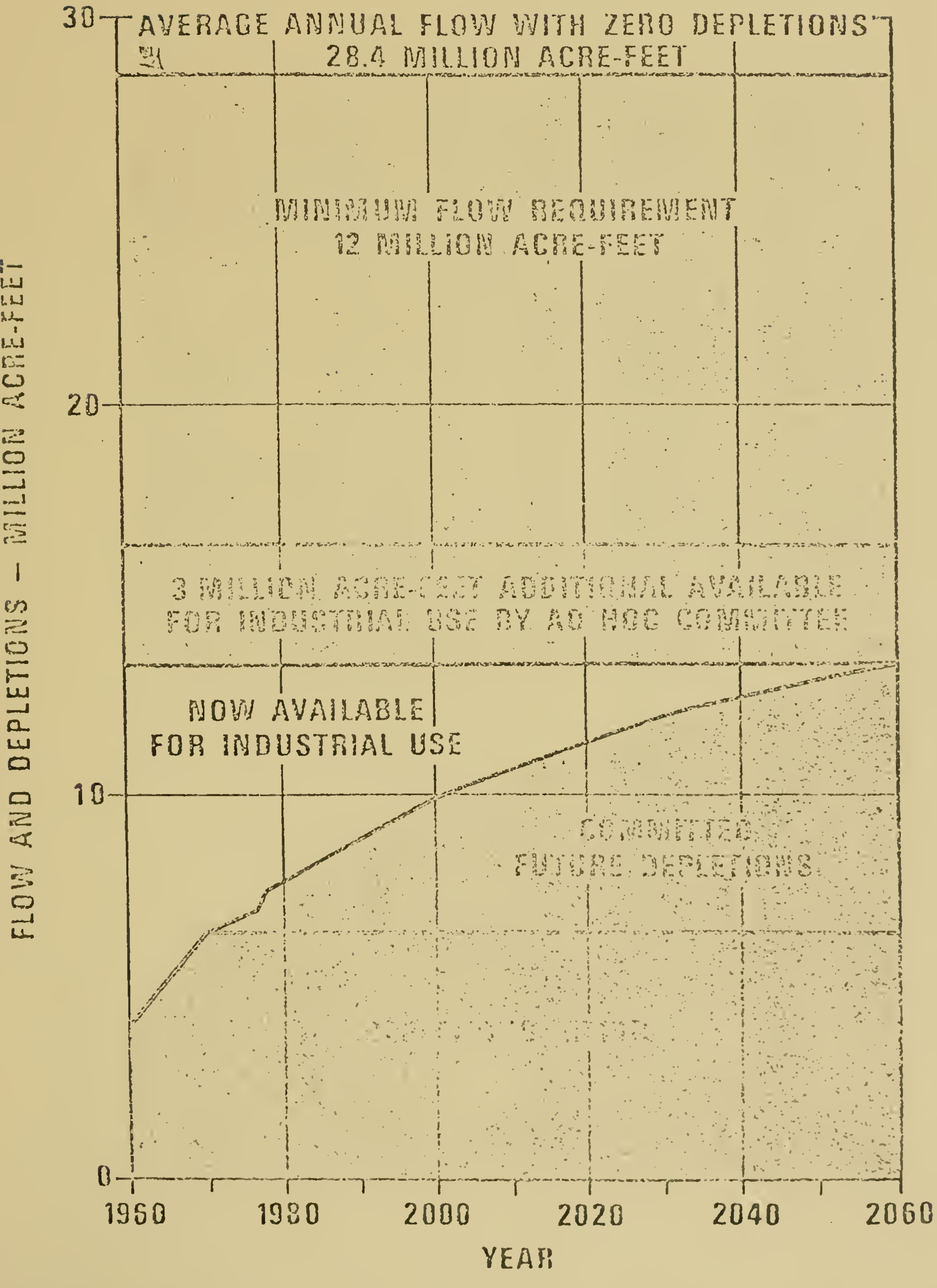


MAIN MISSOURI RIVER RESERVOIRS

RESERVOIR	U.S. RANK[*]	CAPACITY $\overline{M}$ AF/YR	ELEVATION FEET ABOVE SEA LEVEL	AVERAGE ANNUAL FLOW $\overline{M}$ AF/YR	ESTIMATED PIPELINE DISTANCE, MILES
GARRISON	3	24.1	1,850	17,0	350
OAHE	4	23.6	1,596	18.5	288
FORT PECK	5	19.4	2,176	6.8	300

[*] COLLIER'S ENCYCLOPEDIA, P. 675, 1974

ETSI/COAL SLURRY TRANSPORTATION
MISSOURI RIVER AT SIOUX CITY



A RECYCLE LINE WASTES NATIONAL ASSETS

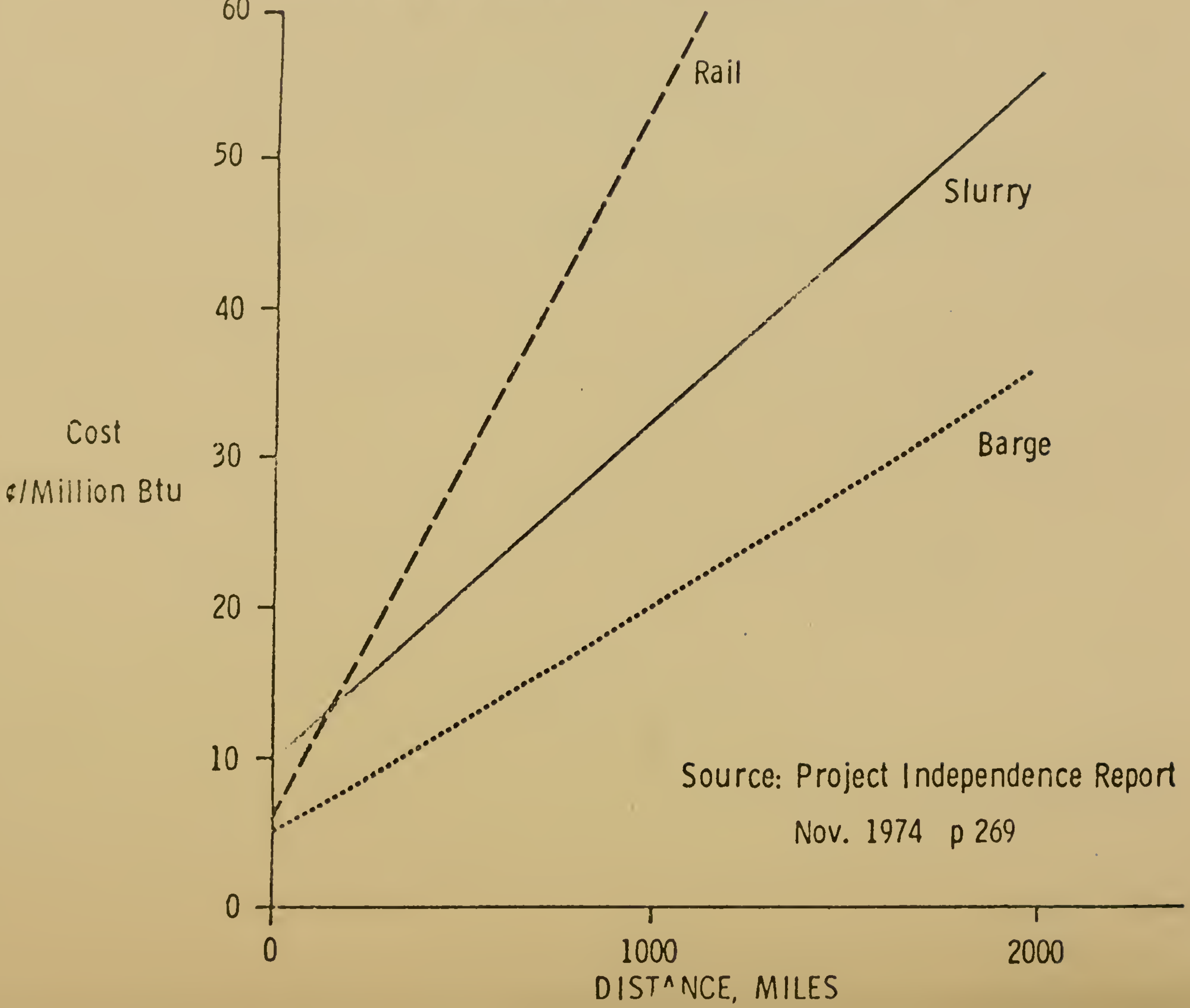
Capital Investment	$ 250 million
Annual Operating Costs (min)	$ 52.7 million
Equivalent Cost of Recycle Water (min)	$ 3500/ AF
Steel Pipe Required	290, 000 tons
Continuous Power Required	52, 000 HP

ETSI/COAL SLURRY TRANSPORTATION
WATER SUMMARY

- Wyoming Legislature passes law permitting ETSI to export
  20,000 acre-feet per year of water
  February 1974
- Wyoming State Engineer grants 40 well permits
  September 1974
- Repeal legislation fails in Wyoming Legislature
  February 1975
- Wyoming Governor confirms constitutionality of the
  1974 Legislation in August 1975

ETSI/COAL SLURRY TRANSPORTATION

RELATIVE TRANSPORTATION COSTS



Source: Project Independence Report
Nov. 1974 p 269

ETSI/COAL SLURRY TRANSPORTATION

TRANSPORTATION ECONOMICS
PIPELINE VERSUS RAIL

(25 million tons of coal per year 1,036 mile distance plus an extension carrying 12.5 million tons of coal per year 140 miles)

- Average Delivered Cost Over 30 Years*

— Pipeline	$ 7.90 per ton
— Rail	$ 28.50 per ton

- In testimony to U. S. Senate, 1974, Floyd Lewis, President of Middle South Utilities, estimates savings of $14 billion to his customers.

*Based on national inflation rate of 4% per year

ETSI

ECONOMIC IMPACT ON WYOMING

(25 MILLION TONS PER YEAR PIPELINE)

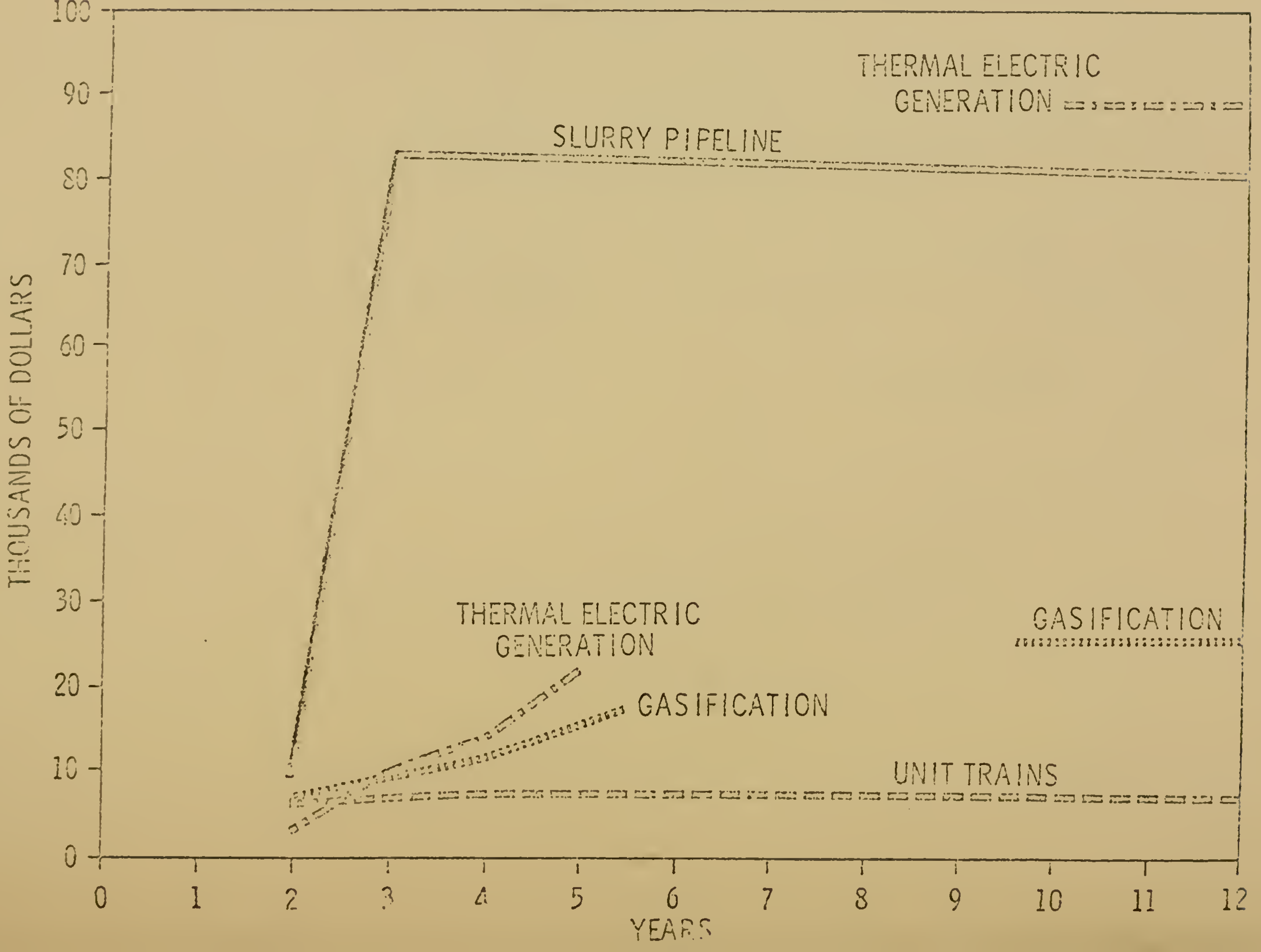
COSTS	$MILLION
CAPITAL INVESTMENT	$ 204
ANNUAL OPERATING EXPENSES	
POWER	4.5
LABOR	1.4
SUPPLIES & SERVICES	3.0
STATE TAXES	2.3
TOTAL COSTS	$ 11.2

ETSI

ECONOMIC FACTORS IN WYOMING

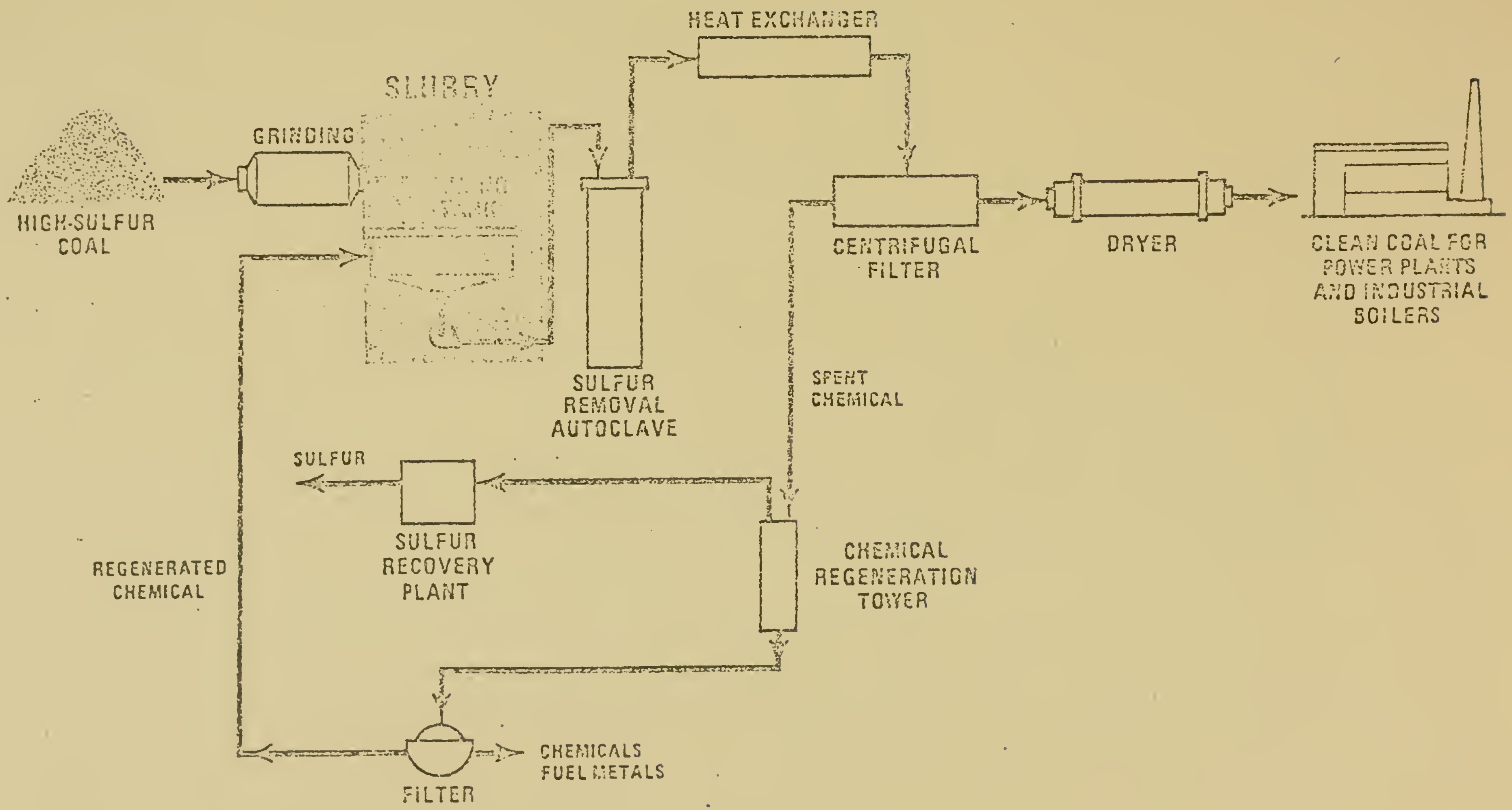
PAYROLL (MEN)	75
INVESTMENT (1977)	$ 204, 000, 000
DOLLARS INVESTED PER MAN	$ 2, 700, 000
TAXES GENERATED PER MAN	$ 30, 000/YR

ASSESSED VALUATION PER UNIT OF POPULATION



ETSI/COAL SLURRY TRANSPORTATION

BATTELLE HYDROTHERMAL COAL PROCESS



WHY SLURRY PIPELINES?

- America needs energy for security and stability
- Most economic for the nation and for Wyoming
- Strong legal protections to Wyoming
- Rich tax benefits to Wyoming
- Uses deep, rechargeable, underground water
- No impact on surface water or shallow aquifers
- Low water requirements
- Environmentally ideal for Wyoming's unique life style

APPENDIX "E"
Submitted by Burlington
Northern Railroad,
St. Paul, Minnesota

THE FARMER

Viewpoint and comment

Coal pipelines vs. farming

DON'T pass off lightly the issue of whether or not coal slurry pipelines will be built, just because you may think they have nothing to do with farming and ranching. They do. Main reason is water, a very important resource to agriculture. And it will take water, lots of it, to move coal via pipeline from the water-deficient Great Plains area to power plants in the higher-rainfall areas of Arkansas and elsewhere (see coal slurry pipeline story, p 9).

There's far too much uncertainty yet about the water situation to give the pipeline concerns a go-ahead. It's unknown whether or not the 6.5 billion gallons of water per year to move coal from Gillette, WY to White Bluffs, AR will be replenished in the Madison Formation underlying much of the Great Plains. The same for that "borrowed" from the Oahe Reservoir in South Dakota. And even if it were replenished, what other future demands will there be for this water—particularly agricultural-related demands? Future needs for irrigation may well be reason enough to reserve this water supply for that purpose alone. The present drouth might indicate that the handwriting already is on the wall.

Second big reason for keeping the coal pipelines out of the Great Plains area is that the railroads already are there. They not only carry coal in all directions from the western coalfields but also many other materials, including the inputs and outputs of agriculture. Being a common carrier of such products, the railroads can stay competitive with the pipelines in price per ton of coal moved and, in some cases, particularly if efficiencies are allowed to improve, can beat the price competition. But taking away much of the railroads' potential share of this new, high-volume coal business could well lead to further deterioration of rail service and higher costs for shipments to and from farms, ranches and industries. Keeping the coal business should help the railroads achieve the efficiency goals they now are striving for.

Giving the coal slurry pipeline firms the right of eminent domain (as now proposed in Congress by HR1863) also could prove to be a real financial headache for farmers and ranchers whose land would be condemned for right-of-way use by the pipeline companies.

The Upper Midwest and Great Plains areas have nothing to gain, but a lot to lose, if coal slurry pipelines get the green light at this time. Food is the end product that will be most affected, and food is the most important resource in the U.S.

SBA loans for farmers, too

IF RURAL nonfarm businesses and industries can qualify for Farmers Home Administration (FmHA) loans, farmers should be eligible for Small Business Administration (SBA) loans. Farmers and ranchers need all the credit backing they can get these days. Thus, we salute passage into federal law (PL 94305) this month the bill which makes farmers and ranchers also eligible for SBA loans.

Farmers and ranchers now qualify for financial assistance under some 19 loan programs operated by SBA. Ag small businesses, for example, could receive a direct loan from SBA for equipment needed to meet government-ordered water pollution control requirements.

"The Small Business Act defines a small business as one which is 'independently owned and operated and which is not dominant in its field of operation'," said Sen. Gaylord Nelson (D-WI), chairman of the Senate Small Business Committee and sponsor of the new SBA legislation. "There is no sector of the American economy in which businesses fitting this definition play as vital and important a role as in agriculture," he added.

Passage of this bill evened things out a bit. After all, the FmHA program was originated primarily for farmers. Now, stated John C. Datt, director of the American Farm Bureau Federation's Washington office, "two-thirds of FmHA loans or loan guarantees approved in 1975 were nonfarm—to rural business and industry, to rural nonfarm housing and to public works improvements in rural areas."

A way to trim meat wastage

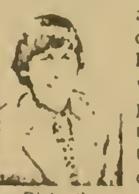
WASTAGE is one thing we need a lot less of in today's food-short world. Thus, a USDA proposal to amend federal meat inspection regulations makes sense to us.

According to Dr. Francis J. Mulhern, administrator of USDA's Animal and Plant Health Inspection Service, the proposal would enable beef and pork processors to utilize new deboning equipment and technology to recover up to 13 to 16 lbs more beef per carcass and up to 3 to 4 lbs more pork per carcass than under traditional hand-deboning methods. That's more than the annual per capita consumption in some parts of the world.

With the mechanical process, a small amount of very finely-ground bone may be retained in the meat—but not detectable by sight, taste or feel, says Mulhern. Probably no more than knawed off by human teeth when trying to get the last bit of meat from a rib or chop.

As things look to me

We welcome Jim Dickrell, 20, as THE FARMER's summertime student trainee. Jim is a senior at the University of Wisconsin, River Falls, where he is majoring in journalism and agriculture. He's also editor of the campus paper, the "*Student Voice*." Jim hails from Elkhart Lake, WI, where his parents, Mr and Mrs. George Dickrell, have a farming operation and where Jim was an active 4-H and FFA member.



Dickrell

Secretary of Agriculture Earl Butz got his point across in a recent speech at the Institute of Food Technologists in California. Some materials, he said, though deadly poisonous in large doses, can be safe and helpful in improving our food supply when used in small doses under controlled conditions.

He underlined his point by saying that, when he gets sick, his doctor prescribes drugs which are deadly poisons. "But he tells me exactly how to use these poisons. And he says that, if I do what he says, I'll get better. And he's right. I've always gotten better."

Our congrats to W. J. ("Kort") Kortesmaki, executive secretary of the Minnesota FFA, for being named 1976 chairman of Minnesota D-Day—the day set aside to encourage Minnesotans to quit smoking.

Kort is a reformed smoker, well aware of the economics of smoking. In 1970, he took his wife and two daughters on a six-week tour of Europe on the money he saved after giving up cigarettes in 1953.

Around 30,000 of those handy, machine-attachable farm safety kits have been sold through CENEX, says Jon Setala, advertising manager for that firm. Although the program now is being closed out, many CENEX dealers still have kits available at a below replacement cost of $10. Many FFA'ers have helped distribute the kits, mount them free of charge on farm equipment. The kit makes an ideal Father's Day gift.

Urbanization is taking some but not a large acreage of U.S. cropland, according to a recently-released study by USDA's Economic Research Service (ERS). Urbanization took only 3½% more land in 1970 than in 1961 in the 53 counties in which 20% of the U.S. population increased for that period. But only one-third of this was cropland.

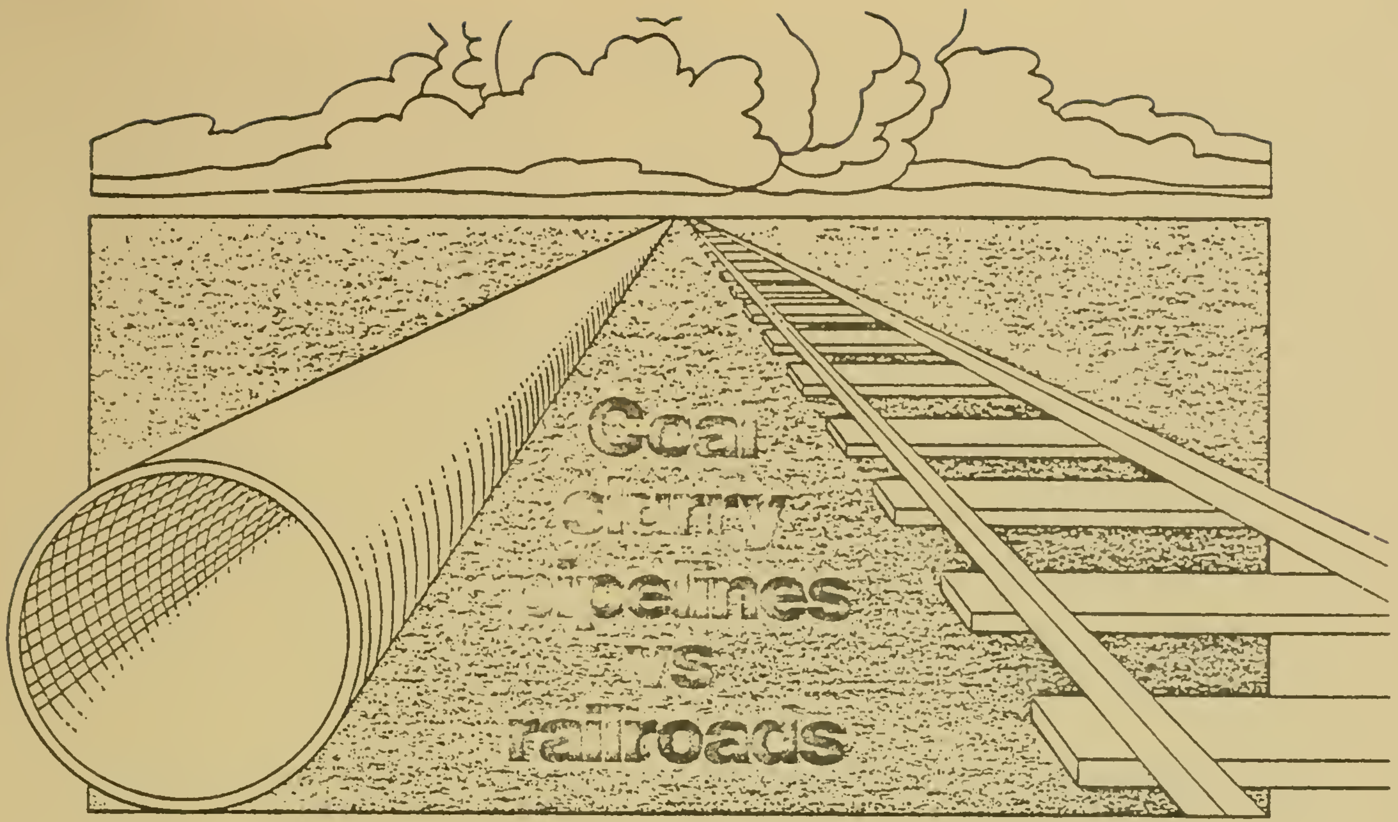
More new cropland was developed, in fact, than was lost to urban development in the U.S., according to the ERS study. Other factors were more important in cropland decline than urban encroachment, including abandonment of marginal cropland to pasture and diversion of cropland to open idle land as changing technology makes farming of some land uneconomical.

A Norwegian friend of mine asked that the following be passed along to readers.

Two Norwegian brothers kept their two horses in a pasture. To tell them apart, they trimmed the tail on one horse. Later, they discovered the black horse was about 8" shorter than the white one.

USDA's Forest Service has a new book out that can help you determine when an older wood-frame house is worth rehabilitating, and if it is, how to plan and do the actual renovation. For a copy of "*New Life for Old Dwellings*" (Ag Handbook No. 481), write: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price is $1.70.

—Tom Doughty



Coal slurry pipelines vs railroads

by Syl Marking

THERE'S a quiet but chips-down struggle going on between railroads and pipeline companies—with farmers in the middle.

The struggle involves western coal . . . railroads . . . controversial proposed coal slurry pipelines . . . and water from water-deficient areas like South Dakota.

Crux of the matter is this: Will railroads, the traditional transporters of coal, industrial and agricultural products, or newly-proposed underground pipelines carry the bulk of the huge western coal deposits to eastern electrical generating plants?

Pipeline proponents, which reportedly have influence in high federal government circles, claim that pipelines can move large quantities of coal more economically and that this is the modern way to go.

On the other hand, railroad officials point out that railroads are common carriers, required to haul all goods. They say the new potential revenue of moving the huge coal deposits, which the energy crisis has suddenly made important, would provide the economic "shot in the arm" they need. It would enable the companies to upgrade their lines to do a better job for all concerned, including agriculture.

If the pipelines are given the green light, say railroad officials, they will skim off the large-volume coal contracts and leave the smaller, lower-volume electrical generating plants to be served by the railroads.

Besides that, add railroad officials, the pipelines will be taking water from water-deficient states and moving it to water-sufficient states. Potential environmental hazards in the form of what railroad officials call "coal lakes" may possibly be another minus for the pipelines.

Pipeline proponents claim there is sufficient water for coal transportation and that their pipelines would be environmentally sound. They also claim the railroads could not meet the challenge of hauling the large volume of coal that will be involved. The railroads emphatically say that's not so, and that they can, and will, meet the challenge if given the chance.

Less railroad service

Railroad officials point to less service for all customers if they can't capture the large-scale transportation of coal from the western fields. They claim they will be unable to raise the financing because of a loss of faith on the part of lenders. If potential investors begin to believe that traffic will be diverted to pipelines, these doubts about railroads could be turned into a self-fulfilling prophecy.

Pipeline proponents claim those contentions are just a scare tactic used by the railroads to get the coal-hauling business. Railroad officials counter that they will plow back substantial sums in upgrading their lines. Burlington Northern, for example, says it plans to spend nearly $455 million between now and 1980 buying new equipment to carry coal mined in its area and another $440 million to upgrade its tracks.

So, both sides claim to have the "facts" on their side, even though the facts often are directly contradictory.

The opposing forces in the fight are complex. But, basically, one side consists of: The railroads, led by Burlington Northern, some environmental groups, some national farm organizations, state farm organization leaders in the areas involved and some western governors and congressmen who are concerned about water leaving their states when they contend it's needed for irrigation and other agricultural and industrial uses.

The other side consists of: Energy Transportation Systems, Inc. (ETSI), the firm which would build the pipeline; Slurry Pipeline Association, a trade group formed to push the proposal; and, in particular, the Bechtel Corporation of San Francisco (one of the nation's largest construction and engineering firms) and Lehman Brothers, one of Wall Street's largest investment firms. Bechtel and Lehman Brothers reportedly own 40% each of Energy Transportation Systems, Inc., with the Kansas-Nebraska Natural Gas Company owning the remaining interest.

The first proposed coal slurry line would be 1,036 miles long, from Gillette, WY, to White Bluffs, AR. The pipeline would cost an estimated $750 million to build. The coal would be pulverized, mixed with water and pumped through the pipeline. The water then would be filtered out and the coal used to fire the electricity generating plants.

The pipeline would require 15,000 acre feet (4.8 billion gallons) of water yearly, with the option to increase volume to 20,000 acre feet (6.5 billion gallons). That much water would be needed to carry the 25 million tons of coal that would be transported by the proposed pipeline each year.

Water—key question

The pipeline water would come from the so-called "Madison Formation," which lies under parts of Wyoming, Montana, Nebraska and South Dakota.

Some geologists claim that withdrawing the water needed for the pipeline would have no real effect on the Madison Formation because the recharge rate is adequate many times over. One estimated it at 150,000 acre feet per year in the area involved. Other geologists have disagreed, one estimating the recharge rate as low as 8,000 acre feet per year.

That need for water to move the coal has spawned the proposal to "market" water from South Dakota's Oahe Reservoir. The proposed water pipeline, which would run from north of Pierre to Gillette, WY, would be 285

(to page 14)

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Coal slurry controversy

(from page 9)

miles long, according to "A Conceptual Study of a Missouri River-Wyoming Aqueduct." The 5' 6" pipeline would be buried just beneath the surface. Seventeen pumping stations would move the water through the line.

According to the proposal, the pipeline would deliver 75,000 acre feet of water annually to Wyoming and 25,000 acre feet annually to South Dakotans along the route. Estimated completion date would be 1981, and estimated project life would be 40 years. The water delivered to Wyoming would be used to supply four slurry lines.

Though South Dakotans traditionally have turned down any exports of water, there has been movement afoot to at least put the state in a position to consider the proposed Oahe-Gillette pipeline.

South Dakota's Natural Resources Board recently approved a plan of action suggested by the conceptual study favoring the pipeline. The study, which urges state public officials to decide by July 1, 1976, whether or not to pursue the project, was sponsored by the Black Hills & West River Conservancy Subdistricts, with financing from the Federal Energy Administration. That study was conducted by Consolidated Engineering of Sioux Falls.

The study group estimated that total project cost would be $670,567,000—$500,752,000 for South Dakota, $169,815,000 for Wyoming. The greater portion of the pipeline would lie in South Dakota; hence the larger portion of cost allocated there. The study assumption was that the two states would issue industrial revenue bonds to finance the project.

The Corps of Engineers and the Department of Interior claim there is enough water in the Upper Missouri River Basin to handle all present and anticipated uses, plus coal development. There is disagreement on this point, however. REA co-ops, for example, call attention to low flows in the Missouri during dry years.

Pipeline proponents have not only claimed that there is adequate water available but that the water in the Madison Formation is too deep for economical irrigation wells; that water doesn't percolate down from shallow aquifers that irrigators would use, that it is of inferior quality and is not being used for other purposes anyway.

Because of preliminary studies, the Wyoming Legislature approved tapping of the Madison Formation for use in coal slurry lines.

Anti-pipeline forces claim that the water is of adequate quality and that shallower irrigation wells may well be affected by the tapping of the Madison Formation for this new water use. These pipeline opponents acknowledge that they don't have proof to support their claims, but they add that neither does the opposition.

Therefore, with the stakes in water use so high, the pipeline opponents urge that no decisions be made until comprehensive, long-range studies can be completed. A series of studies is now underway. The federal government is funding one such study by the U. S. Geological Survey Service. That study, to be done in cooperation with interested states, will take several years.

"There has yet to be a comprehensive study completed on the water capabilities of this formation," declared Congressman Teno Roncalio of Wyoming, in an earlier appearance before the House Committee on Interior and Insular Affairs. "It is no doubt an immense body of water," he added, "but without knowing with more accuracy its size, its capability to recharge and a determination of the needs for the region it potentially serves for agriculture, numerous growth-impacted communities and energy development locally, we should not move ahead with legislation that would facilitate extraction of large quantities of water from the region."

Would boost rail rates

Voicing another aspect of concern, Senator Mike Mansfield, U S Senate Majority leader, writing in the Great Falls, MT, Tribune, declared: "If the 'cream skimming' by the pipeline causes the railroad's anticipated volume to drop anything like 25 million tons of coal, the profitability of the entire rail service will be weakened."

Mansfield contended that the railroads, since they are already there, would be forced to operate with a smaller tonnage if the pipeline siphoned off large coal-moving contracts. This could mean higher railroad rates for wheat and other agricultural exports.

"Increases in coal traffic," Mansfield wrote, "are providing timely and necessary financial nourishment to existing railroads and offsetting to some extent commodity and general merchandise traffic lost in recent decades to government-built highways and waterways. Congressional action to facilitate construction of coal slurry pipelines could be operating at cross purposes with congressional efforts to improve rail systems."

The battle over the proposed

slurry pipeline got into high gear in recent months when pipeline proponents asked the U.S. Congress and four state legislatures—Nebraska, Kansas, Oklahoma and Texas—to give them the power of eminent domain, which is the power to condemn private land for right-of-way use. In short, the pipeline companies then could force all landowners, including the railroads, to give them passage over their right-of-ways.

Pipeline officials contend they are only asking for what some others have, including the railroads, which have power of eminent domain from the states but not the federal government. But pipeline opponents remind that railroads are common carriers and that they are controlled.

The stakes are huge in this battle over who will get to haul the coal from western fields.

Railroads presently haul nearly 70% of the coal loaded at mines for shipment. That amounted to 391 million tons in 1974. Louis Menk, board chairman of Burlington Northern Railroad, estimates that one pipeline alone could cost his company roughly $150 million a year in lost revenues.

A foot in the door

Railroad officials fear, of course, that the proposed Wyoming to Arkansas pipeline would just be the foot in the door for more pipelines, the cumulative effect which could be disastrous for railroads. In fact, they point out, several pipelines are reportedly on the drawing boards or in early tentative planning stages.

Burlington Northern officials agree that the pipelines would be an energy efficient way to move coal in some instances, but not cheaper than unit trains, as pipeline proponents contend. Burlington Northern officials say that in order for pipelines to be economical, one must deal with large volumes to be carried to a single or a few destinations.

The B-N officials point out that their company earlier was involved with Bechtel in investigating the economics and potential for pipelines. But B-N contends it withdrew from the arrangment after concluding that a coal slurry pipeline couldn't compete with rails for transporting coal under average circumstances.

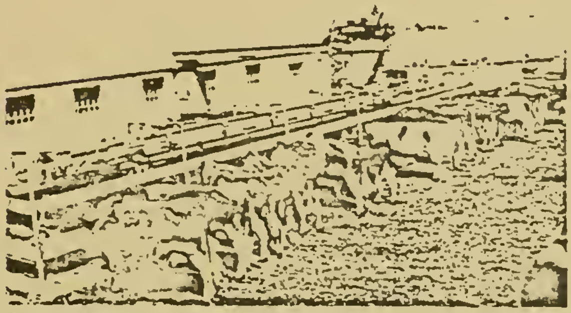
If the slurry pipelines became reality, the railroads would be left serving only the smaller users. Pipeline proponents, however, contend that they can serve smaller plants with branch lines.

In the scramble for support, both sides have pointed to studies supporting their view. A *Washington Star* article of Oct. 5, 1975, reported that Bechtel Corporation did a study, under gov-

(to following page)

Whenever
Feed or Manure
Handling Equipment
is Needed
They Look to PATZ

Irvin Stevens, Jr. and Sr., Rosh City, Minnesota, check over a portion of their herd of 150 head of dairy cattle.



A Patz Material Mover delivers feed through the barn to the Overhead Feeder in the lot. The entire herd is kept in complete confinement the year around.

A Patz Material Mover under the silo chute elevates the silage across the barn with two drop offs in the barn and delivers it to the Overhead Feeder in the feedlot.

Irvin Stevens and son, Rush City, Minnesota bought a Patz Silo Unloader 12 years ago, and because of the dependable and trouble-free service, they have added Patz Equipment whenever it was necessary.

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Fred Haar Company
Gregory, SD
K & N Dairy Supply
Milbank, SD
Milbank Hatchery
Newell, SD
Boom's Silo & Equipment Company
Watertown, SD
Leslie E. Simon

PATZ
MATERIAL HANDLING EQUIPMENT

Coal slurry controversy

(from preceding page)

ernment contract, on pipeline versus rail transportation of coal. Preliminary results showed that, under certain conditions, the pipeline would be a cheaper way to transport the coal. Government officials claim they were not aware of Bechtel's interest in the pipeline before assigning the study.

Another government-sponsored study reached a different conclusion. In a study by the Center for Advance Compilation at the University of Illinois, Urbana, under a National Science Foundation contract, it was found that, unless an entirely new railroad must be constructed, rail costs would be substantially less than the cost of a slurry pipeline for moving coal. Bechtel officials claim the study contained errors and fundamental deficiencies.

Senator James Abourezk, (D-SD), conducted three days of public hearings on the conflict of interest matter of Bechtel making the study for the government. He subsequently charged that there was a conflict of interest on the part of Bechtel, a view later confirmed on investigation by the General Accounting Office.

Though he says the slurry pipeline concept should be studied more carefully, Abourezk does not favor the proposed Wyoming to Arkansas pipeline. He contends the railroads can do the job "as well or better," and therefore it doesn't make good sense to remove that amount of water from that area to move coal.

Congressman Mark Andrews, (R-ND), has gone on record as opposing the pipeline. "It takes a lot of water to move that coal and we just don't have that much surplus water in our area," Andrews told THE FARMER.

"Even more important," Andrews declared, "if we take the coal hauling away from the railroads, then the freight that's left on the railroad is going to have to pay that much more for track upkeep, etc. And if you increase the price of say moving a bushel of wheat out of North Dakota by a dime and a bushel of barley by a dime, that would be roughly $35 million every year in additional costs to North Dakota farmers."

Senator Quentin Burdick, (D-ND), calls for caution and more study before making any decisions on the issue: "The impact of coal slurry pipelines on the Midwest is not sufficiently clear to justify a congressional go-ahead now. These lines will use thousands of acre feet of water per year—water which may be better used for municipal and agricultural purposes in that area.

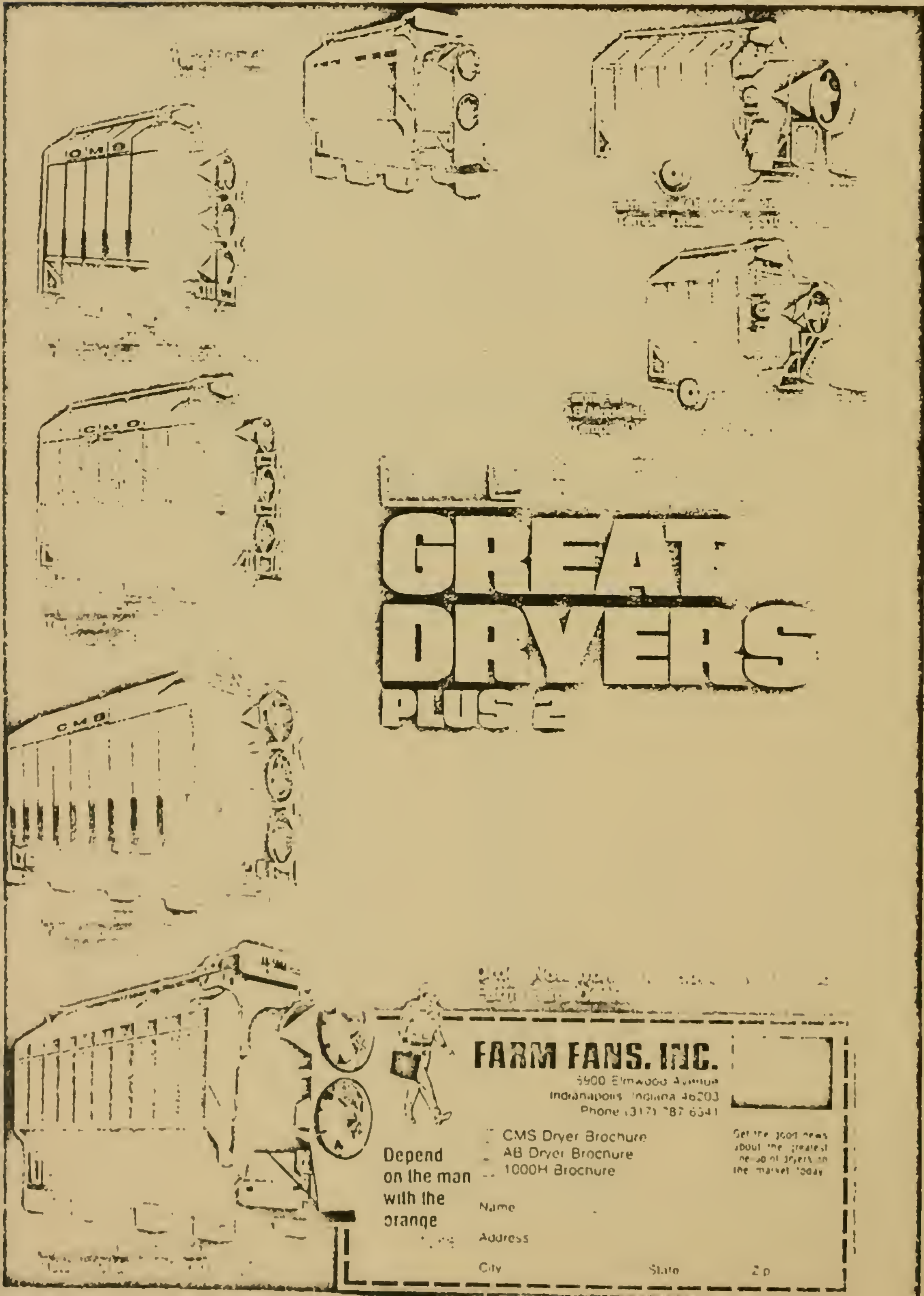
"Also," Burdick adds, "congressional action to facilitate construction of coal slurry lines can be viewed as operating at cross purposes to our efforts to improve the rail transportation system for coal and other materials."

Farm group opposition

The National Farmers Union and the American Farm Bureau Federation recently called for rejection of a bill in the House Interior Committee proposing to grant power of eminent domain to Energy Transportation Systems, Inc. for purposes of building the pipeline. "Exporting water from this fragile region at a time when energy development already is expanding is not consistent with the nation's agricultural interest," the FU officials stated. They also called for a delay in any decisions until the Office of Technology Assessment can complete a more indepth study of the proposed coal slurry pipeline.

In Nebraska, the state Farm Bureau organization strongly opposed the tapping of ground water for use in transporting coal or other resources to another state "when it's needed for agricultural purposes."

Finally, an 18-month study by the nonprofit Upper Midwest Council, headquartered in Minneapolis, recently concluded that development of slurry pipelines to transport coal is not presently warranted. The study also "strongly recommends" that the right of eminent domain not be granted to pipeline interests, at least until additional studies are completed and total effect on water use and railroads is determined.



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APPENDIX "E"(continued)
Submitted by Burlington
Northern Railroad,
St. Paul, Minnesota

EFFECTS OF INFLATION
ON
SLURRY PIPELINES-VS-UNIT TRAINS

James U. Dickson, Jr.

August 13, 1976

EFFECTS OF INFLATION

ON

SLURRY PIPELINES-VS-UNIT TRAINS

1. The Claim: Slurry proponents claim that pipelines, which are capital intensive, are less affected by inflation than unit trains, which are labor intensive.

2. The Facts:

   A. The only way general cost comparisons can be made between unit trains and large-volume pipelines is hypothetically.

      - No coal slurry-line larger than five million tons has been built in the world.

      - Construction costs are crucial and difficult to estimate. Factors such as cost of right-of-way, cost of environmental protection compliance, materials used, etc. impact severely on construction costs (Alaska pipeline cost estimate is now eight times what Bechtel originally estimated).

      - Original proposals called for delivery of 20 million tons to one point but environmental standards presently restrict volume to about 5-7 million tons at any one location. This has significant effect on pipeline costs.

- Pipeline flexibility disadvantages--in rerouting, changing points or origin and delivery, changing rate of delivery--are also very difficult to quantify in a general sense.

- No reliable source of water seems to be available and water-supply proposals, such as Oahe Dam, are difficult to determine costs for.

- Other operational problems such as dewatering, slurry storage, water disposal, and underflow burning are not defined sufficiently for cost determination.

- Various studies done on slurry pipelines arrive at wide variations of cost estimates.

B. Both systems are affected by the same real or anticipated inflation rates.

  - Pipelines have anticipated inflation rates built into the debt portions of capital charges, i.e., "front-end loaded;" and equity portions have to be escalated just like other variable costs.

  - Unit trains reflect current inflation levels by means of tariff escalations.

- Assuming accurate inflation-rate forecasts, neither system will be more advantageous in terms of inflation effects on costs:

- Explanation

  Pipelines would be built with mostly borrowed money. The interest rate on that borrowed money will reflect the lenders' (or investors') best estimate of the levels of inflation over the period of investment. If a lender anticipates no inflation, he might lend money for a 4% rate (to cover risks, costs, return, etc.). If, however, he anticipates a 5% average annual inflation rate over the period, he would tack the 5% on to the 4% to arrive at a 9% rate. In this case, if a pipeline cost were one billion dollars and the payback period were 30 years, the cost of interest plus principal would be about three billion dollars. Approximately one billion dollars of this would be the "load" for anticipated inflation.

  The explanation above assumes all capital costs are related to borrowed funds. If equity financing is used, some escalation would have to be used in order to adjust returns to current levels of inflation.

C. In general, two factors* will determine which is the lower cost system:

1. The initial cost spread between the two systems.

2. The steepness of the actual inflation line.

   - Obviously, if both systems start out even, and there is any amount of inflation, the unit train will lose out (Example A). Conversely, if the unit train cost starts out well below the pipeline cost, and there is a low inflation rate, the pipeline will be at a cost disadvantage (Example B).

   The examples used in the Hudson Institute study indicate that where the lines crossed after the 17th year, the unit train had the cost advantage; where the lines crossed before the 8th year, it was the pipeline which had the cost advantage. In-between, sophisticated analysis is required to determine which system has the edge. (For example: if the lines crossed at the 12th year, the tradeoffs of paying 12 years of "premium" for later savings would have to be carefully examined.)

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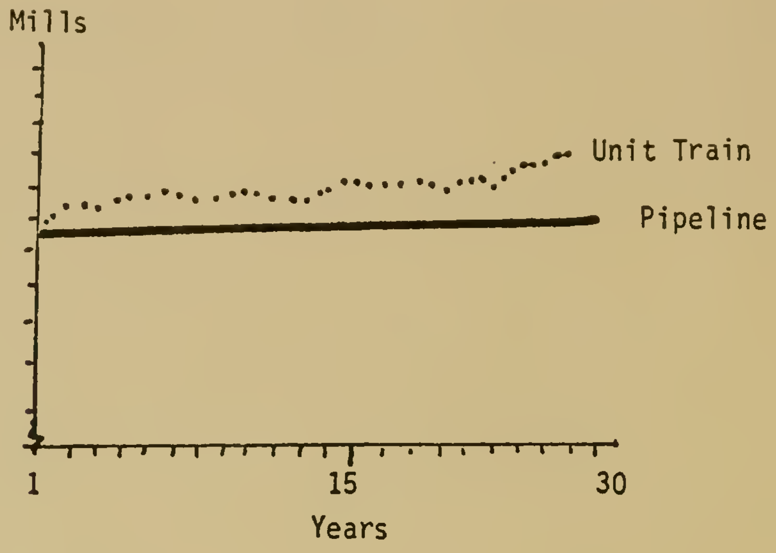
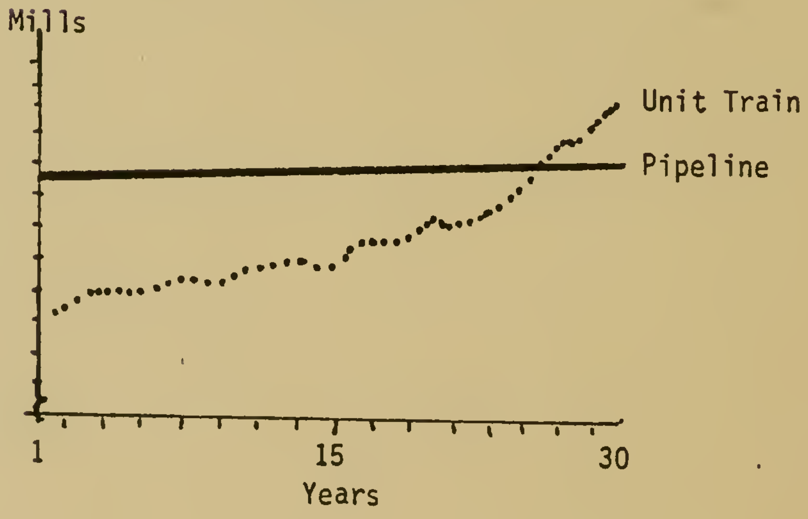
*Another very important factor in judging between the systems is flexibility. This, however, is very difficult to quantify in a general way.

(Example A)



(Example B)



The Hudson data also has determined:

- At a 3% future inflation rate, the unit train system needed to be only $1 per ton below the pipeline initially in order to be clearly the low-cost mode.
- At 5% inflation, the unit train needed a $2 per ton spread.

D. The pipeline escalation component is relatively fixed over time, but the rail system can use productivity improvements to offset inflation:

- longer trains
- lighter cars
- improved track system
- electrification
- more output per labor hour
- coal benefication (water removal)

E. Monotonic projections of high future inflation rates are not a reliable method of analysis.

- Inflation tends to vary considerably from year to year.
- Average inflation rate from 1900 to present was just over 3%.
- Do not allow for productivity changes.
- Many experts (Hudson Institute, Secretary Simon) are predicting much lower inflation for near future.

On Monotonic Extrapolation:

"In the space of one hundred and seventy-six years the Lower Mississippi has shortened itself two hundred and forty-two miles. That is an average of a trifle over one mile and a third per year. Therefore, any calm person, who is not blind or idiotic, can see just a million years ago next November, the Lower Mississippi River was upward of one million three hundred thousand miles long, and stuck out over the Gulf of Mexico like a fishing-rod. And by the same token any person can see that seven hundred and forty-two years from now the Lower Mississippi will be only a mile and three-quarters long, and Cairo and New Orleans will have joined their streets together, and be plodding comfortably along under a single mayor. There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact."

Mark Twain

Table 8

SUMMARY - COAL PIPELINE ANNUAL COSTS

ITEM ON FIGURES	COAL THROUGHPUT TONS PER YEAR (MILLIONS)	DISTANCE MILES	TOTAL ANNUAL COST (MILLIONS)	TOTAL ANNUAL COSTS CENTS/TON MILE	REFERENCES & REMARKS
1	25.0	300	70.7	0.95	C.A.C.* - 50% debt--50% equity
2	9.1	453	60.3	1.50	Bureau of Mines - all equity
3	18.2	453	115.8	1.44	" " " " "
4	4.5	500	38.9	1.73	Ebasco Svcs. - Initial costs--80% debt; 20% equity
5	9.0	500	77.7	1.73	" " " " " " " "
6	18.0	500	169.0	1.86	" " " " " " " "
7	25.0	500	238.0	1.90	" " " " " " " "
8	9.1	574	69.2	1.36	Bureau of Mines - all equity
9	18.2	574	137.9	1.35	" " " "
10	25.0	700	133.4	0.76	C.A.C.* - 50% debt; 50% equity
11	10.0	775	-	1.10	Gulf Interstate - Northwest (orig.concept) 60% water recycle
12	4.5	900	82.5	2.04	Ebasco Svcs. - initial costs--80% debt; 20% equity
13	9.0	900	112.7	1.39	" " " " " " " "
14	18.0	900	249.9	1.54	" " " " " " " "
15	25.0	900	331.6	1.47	" " " " " " " "
16	15.0	961	-	1.22	Gulf Interstate-Houston Natural Gas
17	25.0	1,000	-	0.60	Proj. Indep., 1974-$6.15/ton cost-1000 mi. system
18	25.0	1,000	147.0	0.59	Bureau of Mines - 75% debt; 25% equity
19	25.0	1,000	202.7	0.81	" " " - all equity
20	9.1	1,020	90.2	1.01	" " " " "
21	18.2	1,020	167.7	0.94	" " " " "
22	25.0	1,040	180.6	0.69	C.A.C.* - 50% debt; 50% equity
23	25.0	1,200	-	0.76	" - costs not recorded
24	2.0	1,200	48.1	2.14	C.T.C.**- 12% cost of money; 75% debt; 25% equity;
25	4.0	1,200	71.8	1:59	25 year depreciation, costs escalated 30%
26	6.0	1,200	88.7	1.30	" " " " " " " "
27	8.0	1,200	94.6	1.03	" " " " " " " "
28	10.0	1,200	114.0	1.00	" " " " " " " "
29	15.0	1,200	147.0	0.86	" " " " " " " "
30	25.0	1,260	-	1.00	Brown and Root, Inc.
31	40.0	1,260	-	0.90	" " "
32	4.5	1,500	115.0	1.70	Ebasco Svcs. - initial costs--80% debt; 20% equity
33	9.0	1,500	166.6	1.23	" " " " " " " "
34	18.0	1,500	387.1	1.43	" " " " " " " "
35	25.0	1,500	419.0	1.22	" " " " " " " "

*Center for Advanced Computation

**Canadian Transport Commission

RESOLUTION OF THE
COMMON DATA ELEMENT AND INFORMATION EXCHANGE TASK FORCE
TO ALL FORT UNION REGIONAL TASK FORCES

WHEREAS, part of the charge of the Common Data Element and Information Exchange Task Force is to encourage development and compilation of a common data element dictionary; and

WHEREAS, task force discussion at its meeting of June 9, 1976, indicated the need for such a definition of terms; and

WHEREAS, the task force must initially define what a common data element dictionary should contain; and

WHEREAS, it was the general concensus of the task force that the dictionary not be a definition of terms, but an explanation of base data that is used in doing impact statements, energy demand studies, population projections, etc.

BE IT RESOLVED, that inasmuch as each task force possesses expertise in its own area, the Common Data Element and Information Exchange Task Force recommends that each task force develop its own definitions for their particular area of study and forward them to the Common Data Element and Information Exchange Task Force as soon as possible after the next meeting of the other task forces.

APPENDIX "G"
Prepared by Eleanor
Eck, Montana
Legislative Council

WATER QUALITY AND ALLOCATION
FORT UNION COAL REGIONAL TASK FORCE
MINUTES OF MAY 5, 1976 MEETING
RAMADA INN, BILLINGS, MONTANA

The Task Force on Water Allocation and Quality held its organizational meeting on May 5, 1976, at the Ramada Inn in Billings, Montana. The meeting was called to order at 9:00 a.m. by the moderator, Senator Gordon McOmber, of Montana.

Members of the task force present were: North Dakota--Senator S. F. Hoffner, Mr. Hugh Baker, Dr. Robert Koob, and Mr. Matt Emerson, substituting for Mr. Vernon Fahy; South Dakota--Senator Mike O'Connor, Representative Walter D. Miller, Mr. Delvin Brose, and Mr. Dick Wendt, substituting for Representative Charles Mickel; Montana--Senator Gordon McOmber, Senator Margaret Warden, and Representative William M. Day; Wyoming--Senator Don Cundall, Senator Pete Madsen, substituting for Representative Leonard Graham, and Mr. John Enger. Also present were Ms. Sheila Miedema (North Dakota), Project Coordinator of the Fort Union Coal Regional Task Force; Rose Weber, Executive Director, and Eleanor Eck, Administrative Assistant of the Montana Legislative Council.

Members of the task force who were not present were Representative Jack Olin, North Dakota; Mr. Mike Jandreau, South Dakota; Representative Art Lund and Professor T. T. Williams, Montana.

Senator McOmber pointed out that this is one of seven task forces designated by the Fort Union Coal Conference to work on individual problems. North Dakota took the initiative in getting the grant from the National Science Foundation.

PROCEDURAL RULES

In the absence of specific rules, Senator McOmber suggested that the task force vote by individual, and any member may appoint a substitute and that substitute may vote. It was also suggested that 11 members constitute a quorum. Proxies would be authorized and allowed to vote only if present; there will be no write-in votes. Senator O'Connor moved that these rules be adopted. The motion was seconded and carried.

ELECTION OF OFFICERS

Senator Warden nominated Senator McOmber for the office of chairman. Senator O'Connor seconded. Senator Hoffner moved that nominations cease and a unanimous ballot be cast for Senator McOmber. The motion was seconded and carried.

Senator Madsen nominated Senator Don Cundall for the office of vice chairman. Senator O'Connor moved that nominations cease and a unanimous ballot be cast for Senator Cundall. The motion carried.

Senator O'Connor moved that Eleanor Eck be named permanent recording secretary for the task force. Senator Cundall seconded, and the motion carried.

Senator McOmber introduced Sheila Miedema, the Project Coordinator for the Fort Union Regional Task Force. Ms. Miedema explained that seven task forces have been appointed in the four-state area and are funded by a grant from the National Science Foundation. Each state has agreed to be lead state in one or more of the task forces. She advised the committee members that their travel expenses will be paid from the grant and will include actual commercial air travel expenses or 15¢ per mile by car, and $33 a day per diem (for the meeting day only). She also informed the committee that the North Dakota Legislative Council will act as the administrative office for the various task forces to handle mailing of minutes, documents, information, meeting arrangements, etc., for all task forces.

Senator Warden commented that there was no mention of Canada in the examples of topics for discussion and concern. She went on to say that Montana has two very serious problems, one on the Cabin Creek, which is west of the divide, and the Poplar River, which is east of the divide, and this problem probably affects North Dakota also. This is something that should be discussed as far as water is concerned. She felt the task force should have input on this.

Senator O'Connor suggested that the task force invite someone to a meeting to testify on that. It was decided to add this to the topics for discussion at future meetings.

Representative Day suggested that another topic he felt should be added to the agenda would be the effects of disrupting the alluvium in strip mining and discussion of some types of control measures to be recommended to the Secretary of the Interior.

Senator Hoffner felt that review of data from the Missouri River Basin Commission should have a high priority on the agenda. Senator McOmber agreed that a member of that Commission should be invited to testify at one of the meetings. He also suggested that an item designated as "Federal Relations" be added to the agenda for future discussion.

Senator O'Connor pointed out that when this task force has completed its work it should be at a point where they can establish standards for measuring quality of water that are the same for all four states involved; how to deal with specific problems in specific states is up to the state. What we are talking about are minimal standards of quality of water that leaves the state. We ought to have a uniform minimal standard of that water leaving the state acceptable to all four states, and also within the parameters of federal law, and then we could go about the business of establishing in state statute uniform standards of quality. The second thing we have to deal with is the establishment of a standard for an outflow based on a percentage within some kind of uniform circumstances. That takes care of stream flow and quality.

Senator Warden moved that a resolution be addressed to the Task Force on Common Data Elements and Information Exchange to consider establishing an information exchange base or center in each state during the legislative sessions to make available information on water laws being considered by each legislature. The motion was seconded and carried.

Senator Warden moved that we invite testimony and communications from Canada in considering all three goals of this task force.

Senator Hoffner moved that the task force pursue the question of priorities of use of water. The motion was seconded and carried.

INFORMATION REQUESTED

1. "Possible Development of Water From Madison Group & Associated Rock in Powder River Basin, MOntana-Wyoming," by Frank A. Swenson, July 1, 1974. (Northern Great Plains Resources Program, approved for publication by Director, U. S. Geological Survey).
2. "Shallow Ground Water in Selected Areas in the Fort Union Coal Region." Open-file report 74-48. Helena. 1974. (By Ground-Water Subgroup of Water Work Group, Northern Great Plains Resource Program, U. S. Department of Interior, Geological Survey).
3. Information on material available concerning the authority in allocating Montana's water.
4. Information concerning the water rights requested by Indian tribes in Montana.
5. Material on what the Old West Regional Commission is doing regarding water at the present time.
6. Hydrologic Effects of Strip Coal Mining in Southeastern Montana -- Emphasis "One Year of Mining Near Decker," Bulletin 93, June 1974, Bureau of Mines.
7. Study presently being done by the Bureau of Mines concerning ground water.

8. Copy of legislation enacted in Montana (Chapter No. 255, Laws of 1975) authorizing the Department of Natural Resources and Conservation to purchase water from Fort Peck Reservoir for resale, rent or distribution for industrial use.

9. Mahoney-Milligan Amendment.

10. Status of legislation at the federal level concerning water quality and quantity. (Pristine Water By 1986), and what the states are doing to comply.

ITEMS FOR DISCUSSION - SPEAKERS TO BE INVITED TO FUTURE MEETINGS

1. Different types of water storage, including underground.

2. Who has authority to allocate water?

3. Indian water rights. Presentation at a later meeting by Hugh Baker, North Dakota.

4. Testimony and communications from Canada in considering the three goals of the task force.

5. A member of Congress.

6. A speaker from the Bureau of Reclamation.

TASK FORCE GOALS ESTABLISHED

1. Establishment of common four-state policies concerning federal water laws, regulations, memoranda and policies affecting the four-state region. (Priority #1)

2. Establishment of a common four-state policy concerning minimal water quality standards. (Priority #2)

3. Establishment of common four-state policies dealing with minimal standards of unallocated stream flow. (Priority #3)

The task force members anticipate three or four meetings. The next meeting was scheduled for Pierre, South Dakota, on a date to be set later.

It was moved and seconded that the meeting adjourn. The motion carried, and the meeting adjourned at 2:30 p.m.

APPENDIX "H"
Prepared by Project
Coordinator

Minutes
# of the
Fort Union Regional Task Force
on
WATER ALLOCATION AND QUALITY PROBLEMS

Meeting of Wednesday and Thursday, July 28-29, 1976
State Capitol
Pierre, South Dakota

Senator W. Gordon McOmber, Chairman, called the meeting to order at 1:30 p.m., July 28, 1976.

Members present:

North Dakota:

Representative Jack Olin
Senator S. F. Hoffner
Mr. Hugh Baker
Mr. Vernon Fahy

South Dakota:

Senator Mike O'Connor
Representative Charles Mickel
Representative Walter D. Miller
Mr. Vern Butler

Montana:

Mr. Abe Horpstead (substituting for Senator Margaret Warden)
Senator W. Gordon McOmber
Representative Art Lund

Wyoming:

Senator Don Cundall
Representative Leonard Graham
Mr. John Enger
Mr. George Christopolus
Mr. Wayne Lovercheck

Members absent:

Mr. Mike Jandreau, South Dakota
Representative William M. Day, Montana
Professor T. T. Williams, Montana
Dr. Robert Koob, North Dakota

Others present:

- Mr. Al Bielefeld, Mr. Bob McPhail, Mr. Preston Funkhouser, Mr. Ned Leonard, Mr. Phil Gibbs; United States Bureau of Reclamation
- Mr. Larry Kyte, South Dakota Attorney General's Office representing the South Dakota Department of Environmental Protection
- Mr. Tom Schopert, North Dakota Legal Services
- Mr. Murray Sagsveen, Legal Counsel, North Dakota Water Commission
- Mr. George D. Cunningham, Administrative Assistant for Senator George McGovern, South Dakota
- Mr. Vern Larson, Office of Representative Abdnor, South Dakota
- Members of the Interim Committee on State Affairs of South Dakota Legislature

Chairman McOmber called on Mr. Preston Funkhouser and Mr. Ned Leonard, Bureau of Reclamation, for a slide presentation on the operation of the Oahe Reservoir and Dam complex, which the task force visited in the afternoon. The slide presentation explained the function of the complex, including how it came into being and some of the equipment utilized. Mr. Funkhouser said the Missouri River Basin is a drainage area comprised of parts of states in the Missouri River Basin. Because of the continual fluctuations of the Missouri River during periods of drought and flood, Congress, in 1944, enacted the Pick-Sloan Missouri Basin Program to minimize flooding; provide water for recreation, irrigation, the production of electricity; and to develop better water supplies for industrial, municipal, and wildlife uses.

After the slide presentation, the task force and members of the interim Committee on State Affairs of the South Dakota Legislature toured the Oahe power plant and irrigation plant construction projects. After the tour, the task force attended a meeting of the South Dakota Legislature's interim Committee on State Affairs and discussed a draft of the regional economic plan.

The task force recessed and reconvened at 9:13 a.m., July 29, 1976.

IT WAS MOVED, SECONDED, AND CARRIED BY THE TASK FORCE THAT THE READING OF THE MINUTES OF THE LAST MEETING BE DISPENSED WITH, AND THAT THOSE MINUTES BE APPROVED AS DISTRIBUTED.

Chairman McOmber called on the project coordinator who delivered a resolution from the Common Data Element and Information Exchange Task Force relating to the collection of common data elements, and reported on the resolution of the Water Quality and Allocation Problems Task Force to the Common Data Element and Information Exchange Task Force relating to continuous information exchange on pertinent legislative action during the upcoming legislative sessions. She said an exchange system has been formulated by the Common Data Element and Information Exchange Task Force, and it will be operational prior to the beginning of the legislative sessions in January.

Chairman McOmber then called on Mr. Tom Schopert, North Dakota Legal Services, for a presentation on Indian water rights.

Mr. Schopert said water law is based on three basic ideas:

1. Riparian rights - based on ownership of land bordering on a watercourse.

2. Prior appropriation - based on priority in time of application to beneficial uses.

3. Reserved rights - the Winters' Doctrine expressed in a 1908 case, before the U. S. Supreme Court, where Indian reservations have a reserved right to use as much water as needed, unless excluded by treaty, or Act of Congress.

Mr. Schopert said the states of North Dakota, South Dakota, Montana, and Wyoming, as a condition of statehood, were required to disclaim rights to Indian waters, and these disclaimers are the foundation of Indian water rights. He said the Winters' Doctrine articulated the concept of Indian tribes giving land to the United States in return for present and future beneficial use of all waters running through their reservation. The water can be applied to any use the reservation tribe believes to be most beneficial.

Mr. Schopert discussed several cases now being argued in state and federal courts relating to Indian water rights. He said states and Indian tribes should begin discussion on inventorying water availability and use, so future problems with Indian water rights can be settled without legal action.

In response to a question by Chairman McOmber, Mr. Schopert said treaties that organized reservations provided for the priority of Indian water rights.

In response to a question by Representative Mickel, Mr. Schopert said when land has been severed from reservations by treaty, the Indians lost control of both the land and the water rights.

Senator O'Connor asked whether agreements between reservation tribes and the federal government, over the construction of dams and inundation of land, provided for the maintenance of Indian water rights. Mr. Schopert said the Indians did not relinquish water rights, they were compensated only for the land taken.

During discussion on jurisdiction to negotiate with Indian tribes, Mr. Hugh Baker said the three affiliated tribes of the Fort Berthold Reservation want to negotiate with the state of North Dakota.

In response to a question by Representative Olin, relating to financial resources for inventorying present water use, Mr. Schopert said the financial responsibility was completely federal, but that the states have systems of recordkeeping, measuring, and filing which could be utilized.

During discussion on severed lands, Representative Mickel said the manner in which the land was originally severed, by treaty or by congressional action, was decisive as to water rights. Mr. Schopert said he believed land severed by congressional action will probably stay under state jurisdiction, but any other former Indian land will be governed by the Winters' Doctrine.

Mr. Butler said lawsuits have been filed because of controversy when Indians are given control over non-Indians. Mr. Schopert said such controversies involve issues such as hunting and fishing rights on reservations and reclaiming reservation river beds after dam construction. In response to a question by Representative Miller, Mr. Schopert said compacts between states and Indian tribes could override treaties.

The task force determined that compacts between states and Indian tribes may have a stabilizing effect on the problems of Indian water rights, noting that all interstate compacts have to be approved by the federal government.

Chairman McOmber called on Mr. Larry Kyte, South Dakota Attorney General's Office, for a presentation on the Federal Water Pollution Control Act. Mr. Kyte said the national goal is universal water quality by 1983. He said water quality standards involve designated uses and criteria to keep the uses viable. Mr. Kyte said when states adopt new water quality standards, they must be submitted to the federal government. He said effluent levels are determined from the quantity of water and its rate of flow.

Mr. Kyte said future programs include planning for wildlife protection, recreation, and the preservation of stream value which is based on recreational value, fish content, and aesthetics. Mr. Kyte said the federal government is not subject to the state water permit processes.

In response to a question by Chairman McOmber, Mr. Kyte said federal law will not necessarily produce uniform water quality standards throughout the United States. He said, however, state standards must be at least as stringent as federal standards, or the federal standards would be imposed.

The task force discussed whether or not downstream states have recourse to control upstream states' changes in water quality standards or water use which would increase water pollution and, if recourse does exist, who has authority to initiate legal action.

It was asked if the Environmental Protection Agency (EPA) has legal authority to enforce state water quality standards. Mr. Kyte said the EPA does not have that authority.

Following discussion on the rights and responsibilities involved in interstate water quality standards, the task force agreed to further investigate interstate water rights and the Federal Pollution Control Act, and to invite EPA representatives to the next meeting.

Chairman McOmber called on Representative Art Lund for a presentation on Canadian-American water rights discussions. Mr. Lund said the Saskatchewan Power Corporation is planning to build a power generation complex, including construction of a dam and reservoir, very close to the Montana border. He said negotiations for water allocation have begun, and if the needed water is allocated to the plant, no further industrial development will be allowed in the adjacent areas of Montana. Representative Lund said Montana farmers and ranchers in the area are very concerned. He said if water is allocated, difficult questions will be raised on water and air quality relative to the power plant complex in Saskatchewan.

Mr. Vernon Fahy, North Dakota State Engineer, said a controversy between Canada and North Dakota has arisen because of a dike built by the Canadians which obstructs drainage along the northern border of North Dakota. Mr. Fahy said the International Joint Commission, which consists of representatives from the United States and Canada and which deals with international problems relating to water, has not yet reached agreement on this drainage issue.

Chairman McOmber called on Mr. Abe Horpstead to explain possible water quality problems related to the Saskatchewan plant. Mr. Horpstead said the power plant would raise the water temperature which, in turn, would increase evaporation. He said because of the increased evaporation, salts become more concentrated in the water. He said this salt concentration, as well as boron concentration, will limit alfalfa production in the area. He said another problem is that the lower part of the river goes through a reservation, and Indian water rights must be settled. He said one power plant uses one-third of the water in the river, and three plants would use all the water in the river. If more than three plants were built, or if the allocation formula was such that all the water could not be used by Canada, they would have to import water to run the power plants.

The task force recessed for lunch and reconvened at 1:00 p.m.

Chairman McOmber called on Mr. Bob McPhail, Bureau of Reclamation, to discuss water allocation on an interstate and intrastate bases, the authority for allocation on interstate and intrastate bases, how the water in the region is presently allocated, how much water remains to be allocated, and the allocation of water appurtenant to Indian lands. Mr. McPhail said he works in the regional Bureau of Reclamation office in Billings, which covers parts of the four states in the Fort Union Regional Task Force. He said the bureau markets electric power and is responsible for water resources development and management in the upper Missouri Basin. He said there are six main stem reservoirs on the Upper Missouri which were built by the Corps of Engineers, and from which the bureau obtains electricity for transmission to users.

In response to a question on who has authority to sell water out of the reservoirs, Mr. McPhail explained that a memorandum of understanding between the Corps of Engineers and the Bureau of Reclamation provided that the Bureau of Reclamation will be the lead federal agency for marketing water out of these reservoirs for two years. The bureau is also responsible for environmental impact statements relative to diverting any of the water. He said since that memorandum, progress has been made so that states now have full control over development, and the bureau negotiates directly with the states regarding marketing water out of the reservoirs. Mr. McPhail said water service contracts have been made with Montana and South Dakota for certain amounts of water from the Fort Peck and Oahe reservoirs for industrial use. He said the water service contracts avoid the question of water ownership.

Mr. McPhail said North Dakota has taken the position that they do not want a water service contract, but would rather rely on permit use programs. He said if industry comes into North Dakota, they must first go to the State Water Commission for a water use permit.

Accompanying Mr. McPhail from the Bureau of Reclamation were Mr. Al Bielefeld, legal field solicitor, and Mr. Phil Gibbs, hydrologist. Mr. Gibbs was asked to address the question of what quantity of water the task force should be concerned with. Mr. Gibbs said the Pick-Sloan Act gave the Corps of Engineers the right to develop the Missouri River Basin. State governments and the public asked if there was enough water to accomplish all projects envisioned in 1949. He said the Bureau of Reclamation made projections on how much water would be needed, and in 1970 questions were again asked on how much water would be enough forthe Missouri River Basin. Mr. Gibbs showed a schedule of allocation for the Missouri River on how the water is presently allocated, and how it is expected to be allocated in the future. He said the upper states in the basin are not restricted on navigation because of the Mahoney-Milligan amendment.

In response to a question by Senator O'Connor on whether or not the projections were correct, Mr. Gibbs said municipal use is very low, and there is no depletion of water due to municipal use because storm runoff actually puts back more water than is taken out.

In response to a question by Senator Hoffner regarding plans for more generating plants, Mr. Gibbs said no new dams or generators were planned, however, kilowatt output capacity may be added to existing plants. He said additions to capacity would not use any more water.

Mr. Gibbs said the use of water for coal development was far more efficient than using the same amount of water to generate electricity. He said the same acre-footage of water would produce 800 times more energy from coal than from electricity generation. The task force discussed the relative benefits of writing a compact among themselves, or relying on the present Missouri River Basin Compact, and concluded that the present compact was preferable.

In response to a question, Mr. Al Bielefeld said 16 percent of all power produced in South Dakota stays in South Dakota, and that which is shipped out of South Dakota does not go very far for economic reasons. Mr. McPhail said the eastern division of the Missouri River Basin uses all its power within the Missouri River Basin states.

The task force then discussed water quality. Senator Cundall asked how the EPA regulations under the Federal Water Pollution Control Act would work in relation to state laws when the state laws were more stringent than the federal laws, what will happen between the states when their water quality laws differ, and whether or not water pollution control standards can actually dictate the point of no further development.

Senator O'Connor suggested that the Water Quality Standards Acts from all four states be analyzed and compared.

Questions were again raised by task force members regarding whether or not EPA could get involved with disagreements among states, and whether or not the EPA could support state law above federal law when a conflict arose and the state had more stringent pollution standards. Mr. McPhail said the EPA and the federal government would back state laws to a level of "reasonableness."

A MOTION WAS MADE TO ENSURE THAT EPA OFFICIALS WOULD BE AVAILABLE TO DISCUSS THE ABOVE-MENTIONED PROBLEMS SOMETIME DURING THE NEXT MEETING. THE MOTION WAS SECONDED AND CARRIED BY A VOICE VOTE.

Chairman McOmber asked for any further discussion relative to water allocation. Senator O'Connor asked whether or not the four states would be better off with a new compact which includes Indian tribes in the four states, and whether such a compact is necessary or even possible.

Mr. Fahy said he was opposed to a new compact but favored a "collective relationship." He said the collective relationship included the four states keeping each other informed at all times of their future plans. Mr. Fahy said he believed introducing a new compact, which would have to go through the federal government, could cause a loss of rights that the four states presently enjoy because of their Upper Basin location and the right of the northern states to use water as they wish. He said the Mahoney-Milligan amendment was an excellent protection for the Upper Basin states against the Lower Basin states for allocating Upper Basin water as they see fit. Mr. Fahy said open and above-board planning and exchange of information should take place and should be led by the states, not the federal government.

Mr. Christopolus agreed with Mr. Fahy saying that any compact would have to involve all 10 Missouri River Basin states, and the upper states would lose. He said in reality, our four states could not compact without including the other six.

Senator O'Connor addressed the subject of continuing communication after the National Science Foundation funding has run out and asking the states to fund such communication. The task force discussed whether or not legislative action would be necessary to confirm the informal communications and provide for funding. Mr. Fahy said he did not believe North Dakota would need special legislative action for such a move, because he could put a request for funds directly into the Water Commission budget.

Representative Mickel said having legislative input into such information exchanges was very helpful, and preferable to having information exchange among executive branch people only.

The task force agreed that communication lines should be kept open, and that the Oahe pipeline and federal hurdles to water quality and allocation should be included in future discussions.

Representative Olin suggested that each state delegation consult with their respective legislative service organizations and have them appoint persons to a standing committee which would meet annually to discuss water legislation, with executive branch input as a continual communication update.

A MOTION WAS MADE BY REPRESENTATIVE OLIN THAT THE PROJECT COORDINATOR INVESTIGATE THE APPROXIMATE COST OF SUCH A MEETING, AND THAT THE TASK FORCE MEMBERS REQUEST THEIR LEGISLATIVE SERVICE ORGANIZATION TO BUDGET FOR AN ANNUAL MEETING. THE MOTION WAS SECONDED AND CARRIED BY A VOICE VOTE.

It was suggested by Senator O'Connor that the differences in the state water quality standards be compared, and that each state send a copy of its laws to the project coordinator so discussion can begin on the differences in the laws, and whether or not they can be made compatible.

Senator Hoffner suggested that technical experts on water quality from each state be present at the next meeting to explain and evaluate the differences in water quality standards among the four states.

Mr. Baker suggested that Indian water quality laws also be investigated.

A MOTION WAS MADE BY SENATOR O'CONNOR TO INVITE AN EXPERT FROM A WATER QUALITY DEPARTMENT TO TESTIFY BEFORE THE TASK FORCE ON ANY STANDARDS IN THE FOUR STATES IN EXCESS OF FEDERAL STANDARDS. SENATOR O'CONNOR AMENDED THE MOTION TO INCLUDE INDIAN TRIBE STANDARDS IN EXCESS OF FEDERAL STANDARDS. THE MOTION, AS AMENDED, WAS SECONDED AND CARRIED BY A VOICE VOTE.

The task force also agreed to have the project coordinator invite individuals knowledgeable on slurry pipeline transmission to testify at the next meeting.

Mr. Fahy suggested the task force become familiar with information sources such as the Regional Environmental Assessment Program (REAP) of North Dakota and the Water Resources Council bibliography of all projects in the Missouri River Basin. The project coordinator will continually keep abreast of water projects in the four states.

The task force agreed to delay discussion of the Common Data Element and Information Exchange Task Force resolution, indicating that it was premature to discuss the resolution without the expertise to define common data elements. It was suggested that the common data element resolution could be discussed after the next meeting.

It was determined that the next meeting will be held in Cheyenne, Wyoming. Details on the meeting place and date will be handled by the chairman, the Wyoming delegates, and the project coordinator.

A MOTION TO ADJOURN WAS MADE BY REPRESENTATIVE OLIN, SECONDED, AND CARRIED. The meeting was adjourned.

Sheila Miedema
Project Coordinator

APPENDIX "I"
Prepared by
Project Coordinator

FORT UNION REGIONAL TASK FORCES

WATER ALLOCATION AND QUALITY PROBLEMS

SUMMARY

Meeting of Monday & Tuesday, October 11-12, 1976
Hitching Post Inn
Cheyenne, Wyoming

Members present:

South Dakota

Senator Mike O'Connor
Representative Charles Mickel
Mr. Dick Wendt for Representative Walter D. Miller
Mr. Vern Butler

Montana

Senator W. Gordon McOmber
Representative Art Lund
Representative William M. Day
Professor T. T. Williams

North Dakota

Representative Albert Rivinius for Representative Jack Olin
Dr. Robert Koob
Mr. Vernon Fahy

Wyoming

Senator Don Cundall
Representative Leonard Graham
Mr. George Christopulos
Mr. Wayne Lovercheck

Members absent:

South Dakota

Mr. Mike Jandreau
Representative Walter D. Miller

Montana

Senator Margaret Warden

North Dakota

Representative Jack Olin
Senator S. F. Hoffner
Mr. Hugh Baker

Wyoming

Mr. John Enger

Others present:

W. Pat Jennings, President, Slurry Transport Association, Washington, D.C.
Bill Murphy, Burlington Northern Railroad, Casper, Wyoming
Frank Odasz, Energy Transport Systems, Inc., Casper, Wyoming
Paul Schwieger, Environmental Engineering, Wyoming Department of Environmental Quality, Cheyenne, Wyoming
Jerry Raisch, Environmental Protection Agency, Region VIII, Denver, Colorado
Keith Demke, State Health Department, Bismarck, North Dakota
Sheila Miedema, Project Coordinator, Bismarck, North Dakota

The meeting of the Task Force on Water Allocation and Quality Problems was called to order at 10:15 a.m. Monday, October 11, by Chairman W. Gordon McOmber.

Ms. Sheila Miedema presented the minutes of the task force's last meeting. Copies of these minutes will be forwarded to each member in the near future. Mr. Butler made the following corrections to the minutes by mail:

"1. On page 6, paragraph 3, line 5, I would suggest using the words "marketing water storage service out of these reservoirs". South Dakota does not recognize the Federal Government's legal authority to market the water, but does recognize the Federal Government's authority to provide storage service out of the main stem reservoirs. Thus, whenever we are talking about marketing of water, we use the term "marketing water service".

"2. In the eleventh line of the same paragraph, it is noted that Mr. McPhail said, "water service contracts have been made with Montana and South Dakota". I believe at that time water service contracts were being negotiated with these two States. Since then, Montana did sign a water service contract. South Dakota has not yet signed an industrial water service contract with the Federal Government.

"3. On page 7, second paragraph, line 3, I would suggest striking the words "generators", since the Corps of Engineers is planning new generators at Ft. Randall Dam and Ft. Peck Dam, later units may be installed at Garrison and Oahe.

"4. In the third paragraph, page 7, the last sentence indicates there is a present Missouri River Basin Compact. This is incorrect as there is merely a Federal law allocating the water resources between the upstream states and the downstream states. There is also a Missouri River Basin Coordinating Committee that establishes the policy for reservoir operation which in turn is the allocation of water. I would suggest using the term "or relying on the present arrangements", and conclude that the present arrangements were preferable."

Ms. Miedema discussed future budget questions. She also discussed the film being made on the activities and conclusions of the seven task forces. This film will be presented to the legislatures and all interested parties in each of the four states. Final reports are due November 5.

Mr. W. Pat Jennings presented a film entitled "The Pipeline of Black Mesa," which provided information concerning the slurry pipeline from the Mesa Verde coal mines in Arizona to the electrical generating plant on the Colorado River at the tip of Nevada. A copy of Mr. Jennings' speech is attached as Appendix "A". Mr. Jennings also presented slides showing benefits of the slurry pipeline system using an Ohio slurry pipeline as an example.

Several questions were raised about the pipeline in Ohio, as it was forced to close down, due to railroad competition and the fact that it was a pilot project.

Representative Day questioned the feasibility of slurrying different grade coal. Mr. Jennings said he saw no problem with that.

The life of the pipeline was raised by Mr. Christopulos. It was believed that the plant boilers would last 30 to 40 years and the pipeline itself much longer.

Cost figures of the Black Mesa pipeline were raised and Mr. Jennings will forward figures to the task force in the near future, if they are available. The Burlington Northern Railroad also will submit cost figures for transportation of coal.

Representative Mickel raised the question as to the availability of coal to other customers between the origin and the end of the pipeline. Mr. Jennings reported that the pipeline could be tapped at various points along its length.

It was also noted that fluids other than water could be used to slurry the coal.

Representative Day questioned how demanding the Slurry Transport Association is, i.e., do they try to change a state's legislation in order to compete? Mr. Jennings explained that Slurry appreciated each state's rights and laws and the only legislative change they have sought was the right of eminent domain from the U. S. Government.

Mr. Frank Odasz of the Energy Transport Systems, Inc. (ETSI), gave a slide presentation pointing out the highlights of slurrying systems. (ETSI is making plans for a coal slurry pipeline between Wyoming and Arkansas.) He explained the benefits of coal development. He also mentioned the fact that 11.8 billion tons of coal is owned by the Burlington Northern Railroad and they control 70 percent of the transportation in this area. The pipeline, originating in Wyoming, will be 1,036 miles long and will extend through Nebraska, Kansas, Oklahoma, and end in Arkansas. The pipeline will traverse 49 railroad crossings. An alternate route has also been selected to go through Colorado, Oklahoma, and Arkansas. In areas where the railroad does not own the land its tracks are on, ETSI anticipates few problems in crossing the tracks with the pipeline. There will be 10 pump stations in this line with 17-750 horsepower pumps in each station.

The advantages to Wyoming are in the areas of: the environment, water conservation, ideal labor requirements, etc. On a national level, the benefits would be energy savings, economic savings and balance of payments.

Of all forms of coal conversion and coal transportation only oil processing uses less water than slurrying. Water evaporation alone in Wyoming uses 23 times as much water as required for slurry. It is not a flammable substance. Slurry leaves no physical conditions, (e.g., railroad crossings), no legal problems, and no economic problems. Wyoming has plenty of water. If slurry adversely affects anyone in any way, ETSI will be responsible and will make amends. Slurry will use only deep ground water and therefore anticipates no effects on any presently used sources of water. It was pointed out that a barge system is the most economical way to transport coal, slurry was second, and the railroad third. Average transportation costs over a 30-year period for slurry was $7.90 per ton and for the railroad $28.50 per ton, plus the railroad charges self-owned cars. Slurry will provide $204 million capital investment in Wyoming during the first year, plus 75 jobs. The slurry process handles coal already prepared to become synthesized gas, and desulfurized coal for power plants and home heating. (A copy of Mr. Odasz' presentation will be made available to all task force members in the near future.)

A brief discussion followed, basically concerning water supply needed for slurry. Wyoming has done several studies on this matter. One is the study on the Madison acquifer and the other, which will be available in 30 to 60 days, concerns water recharge sources in the Madison Formation.

Mr. Keith Demke gave a brief presentation of the water quality standards in North Dakota. North Dakota has two water standard bases: Stream classification and parameter limitations. The North Dakota Health Department is charged with maintaining or improving wherever possible surface water quality. The department enforces level of effluent discharge in accordance with the National Pollutant Discharge System. North Dakota has 50 water quality monitoring stations sampling for background data as well as for detecting violations.

Discussion followed concerning the quality of water running interstate. It was noted that EPA must evaluate quality of interstate waterways before approving each state's standards. It was also noted that no problems have arisen to date concerning the quality of water running interstate in the Fort Union Region.

Mr. Butler gave a general presentation of the water quality laws in South Dakota. Before 1955 South Dakota allocated water by the appropriation and riparian doctrines. In 1955 the state passed their water rights code of vested rights. The only exception to vested water rights is water claimed by Indian tribes. South Dakota does have the unique feature in that it gives domestic use top preference. Ninety-five percent of all water conflicts involve this domestic use feature. South Dakota has no definition of beneficial use or on-stream use. An anti-mining provision states no more groundwater can be taken out than can be replaced by natural recharge. South Dakota has no provision relative to the use of water outside the state. Water permits can be canceled due to nonuse. All permits require a public hearing. Before irrigation is allowed, water quality and land quality must be adequate. All applications for 10,000 acre-feet of water per year or more must go through the legislature.

Water pollution laws of South Dakota are administered by the Department of Environmental Protection. They classify all waters according to beneficial use and have standards for each classification of water. The department issues effluent standards for anyone who may discharge effluents. Enforcement fines are quite severe. The department has a nondegradation provision unless overriding economic and social benefits can be obtained. The big concern for South Dakota relates to Indian claims and rights to water. Discussion followed.

Mr. Christopulos gave a few remarks about water quantity in Wyoming. Wyoming water distribution is strictly by the appropriation doctrine through permits. The Board of Control consisted of the four water division superintendents and the state engineer. All adjudication or changes go through this board. Appeals go through district court. Wyoming has no preferred uses. Legislative approval is required for use of water outside the state. Discussion followed.

The meeting was recessed at 4:30 p.m.

The task force reconvened on Tuesday, October 12, at 8:30 a.m.

Mr. Paul Schwieger was present to discuss Wyoming's water quality laws. The discussion compared those laws with the laws of other states. Mr. Schwieger provided the task force with copies of the 1974 Wyoming Water Quality Rules and Regulations. A copy is attached as Appendix "B". He would also be happy to supply anyone with further water quality information, including the 305 Level B study data gathering effort. Mr. Schwieger can be contacted at the Hathaway Office Building in Cheyenne.

Mr. Fahy noted the serious problem between water quality and water quantity in that changing quantity automatically changes quality.

Mr. Jerry Raisch of the EPA discussed state versus federal rights in regard to water quality laws. Discussion evolved around these differences and it was found that most states have stricter laws than the federal government. A study has been done comparing each state's laws and they do seem similar. (This study will be provided to the task force members.) Mr. Raisch agreed to send the Federal Safe Drinking Water Act to Ms. Miedema for distribution to the members of the task force.

Discussion in response to Ms. Miedema's question revealed that no further meetings were contemplated at this time. However, the task force emphasized the desire to continue, perhaps under different funding sources, with these meetings. The task force felt this type of information exchange was extremely beneficial. Senator O'Connor moved that it be suggested to each state's legislative service agency, executive branch, and Indian officials that they finance the expenses of their own representatives. The motion was seconded by Mr. Fahy and carried.

Ms. Miedema went over the fact that she has asked for an extension on the time limit of these task forces so they may use any money left in the budget. A joint meeting of all the task forces was felt to be unnecessary.

Involvement of the Old West Regional Commission was discussed. Money for continuation will be requested from Old West.

Definitions contained in each of the state's water quality laws were discussed. It was decided that the Common Data Element and Information Exchange Task Force should be responsible for consolidating these definitions. A motion was made, seconded, passed to that effect.

A formal request to the EPA for an analysis of the state parameters for water quality was made by motion.

The chairman was asked to make a request to the North Dakota Legislative Council to be the coordinating agent for future meetings of this task force. The chairman agreed to make the request.

Senator O'Connor expressed appreciation for the opportunity to continue discussing common concerns through the use of federal grant moneys. He felt that those granting federal funds should be notified that this task force wishes to continue communication with the North Dakota Legislative Council as the central agency for coordination in reviewing further concerns of the four states. Also to request all federal agencies involved in water quality or water allocation to notify the Fort Union Regional Task Force on Water Quality and Allocation Problems of any new determinations or directives in their areas of concern.

Senator Cundall said the Fort Union states of North Dakota, South Dakota, Montana, and Wyoming unanimously agree that it is of prime importance to the development of the Fort Union Coal Formation that the states involved maintain their prerogatives over water and water rights within the region without encroachment by by federal agencies.

Representative Graham suggested this statement become the policy statement for this task force.

Senator O'Connor suggested Senator Cundall's statement be added to his statement and that it become the policy statement for the ongoing task force on Water Allocation and Quality Problems. This suggestion was accepted by the task force.

Representative Day felt that the railroads should be allowed to give their cost statistics also.

More general discussion evolved around the slurry pipeline proposal.

Ms. Miedema discussed the reasons for making a film. She believes it would be an easier way to present the work of the seven task forces to a greater number of people. The film will be 17 minutes in length and show the basic high points of each task force. Each chairman must approve the part of the script on their respective task force.

The meeting adjourned at 11:30 a.m.

Remarks of W. Pat Jennings, President of Slurry Transport Association, prepared for delivery October 11, 1976, at a meeting of the Fort Union Regional Task Force on Water Allocation and Quality Problems in Cheyenne, Wyoming :

I am grateful for this opportunity to be here with you today.

I expect I will learn much more from you than you will learn from me. I have always heard that someone who is as much as 100 miles from his home is an "expert" and if he has a briefcase, he is an "authority." I am much more than 100 miles from home today and I have a briefcase, but I assure you that I do not consider myself to be either an expert or an authority.

On the contrary, I am very conscious of the fact that I am not only a relative newcomer to the field of energy transportation, but I am an Easterner. And even though the streams that drain my farm in southwest Virginia flow to the Mississippi River, just as they do out here, I realize that your concerns and your problems are not always the same as those that my neighbors and I face in the Highlands of Virginia.

I am confident that we have much in common despite the miles that separate our homes. I found this to be true when I was a Member of Congress. My colleagues from this part of the country and I generally shared the same ideals, the same sense of justice and of fair play, and the same love of country. And when there were differences of opinion, there was a willingness to seek the other person's point of view, to exchange ideas and information in an effort to find a common meeting ground that would provide the greatest benefit to the greatest number of citizens.

I think that is what this task force is all about. And that is why I am so glad to be here. I know I can learn from you and I believe I have information and a point of view that will be helpful as you seek the best possible solutions to the problems of developing your coal resources in this four state area.

The nation's future energy needs dictate a greatly increased reliance on coal. And if production increases as predicted, then it follows that the transportation system should increase proportionately.

Fourteen years ago, President John F. Kennedy visited over in South Dakota to dedicate the Oahe Dam at Pierre, and I want to recall for you a portion of what he said there, and I quote:

> "...Surely a continent so rich in minerals, so blessed with water and a society so replete with engineers and scientists can make and must make the best possible use of the bounty which nature and God has given us, public and private, federal and local, cooperative and corporate. We cannot prevent other people in this country from developing their resources. We look forward to the day when energy will flow where it is needed. We cannot permit railroads to prevent coal slurry pipelines from conveying the resources of our mines..."

And yet that is exactly what is happening. Let me explain.
Coal is very versatile. It can be used and transported in many ways. It can be converted as it comes from the mine and then delivered to the consumer over high voltage transmission lines as electricity or through pipelines as gas or synthetic liquid fuel.

But usually, coal is carried from the mine mouth for conversion into energy at some distant point near the ultimate consumer. Most coal is hauled from the mines by the railroads with lesser amounts moving by barge or truck.

It is illogical, but true, that coal that has been converted into energy can move through a pipeline, but coal in its natural state cannot, although pipeline transportation of pulverized coal is technically feasible and economically attractive. Coal can't go through a pipeline in this country simply because the railroads say it can't.

Coal pipelines are a transportation option that you should not be denied simply to protect the existing railroad monopoly on coal traffic.

We all know of the success of oil and gas pipelines. The technology of large diameter, long-distance pipelines is well developed. In the past century, hundreds of thousands of miles of such lines for crude oil, petroleum products and natural gas have been laid all over this country. Pipelines are commonplace and all the experience gained from those pipelines has been extended to slurry pipelining. The only significant difference is in the nature of the pumps.

Pipelines are presently transporting over two billion ton-miles a year of coal, iron, limestone, copper, phosphate and similar materials in various parts of the world. I have several slides to show you that will give you some of the history and background of coal slurry pipelines so you will have a better understanding of the role they can play in transporting coal in the future.

The first patent for a coal slurry pipeline was issued in 1891 but more than 50 years passed before a commercial coal slurry pipeline became a reality in this country. When the largest consumers of coal turned to oil and natural gas after World War II, coal suffered a severe depression. Any economies gained by improved production methods were eaten up by increasing rail transportation costs. To meet this problem and try to stay competitive with fuels that moved by pipeline, (slide 1) the Consolidation Coal Company of Pittsburgh began experiments in 1950 with a coal slurry pipeline. (slide 2) The result was a 108 mile coal slurry line from a mine near Cadiz, Ohio, to the Cleveland Electric Illuminating Company's Eastlake Generating Station. Opened in 1957, that first commercial pipeline was only 10 inches in diameter, but it delivered more than 7 million tons of coal over a 6 year period.

Clearly, it was a successful operation.

The Ohio pipeline not only demonstrated the technical feasibility of coal slurry pipelines but it cut costs and forced fundamental changes in coal transportation methods. During construction, the rail charge for hauling coal jumped 62 cents to $3.25 a ton. By the time the line was finished, the rate was up 22 cents more to $3.47. Finally the railroads responded to the pipeline's challenge by introducing an innovation of their own-- the unit train, and they reduced the rate on all coal in that area to $1.88 a ton. With such a sharp reduction in transportation charges, the Ohio pipeline was deactivated, having accomplished it cost cutting mission successfully.

The next coal slurry pipeline in this country was (slide 3) the Black Mesa line, built in 1970 to carry coal from the Black Mesa Mine in Arizona (slide 4) to the Mohave Generating Station in the southern tip of Nevada. The construction of this pipeline to carry coal over (slide 5) 273 miles of rugged terrain was an incredible and imaginative feat of engineering. It stands as a good example of the type of resourcefulness we must have to provide for our energy needs in the future. (slide 6) The Black Mesa line, the world's longest solids-carrying pipeline operates on water drawn from a deep underground aquifer and is powered by pumps such as these. Without a doubt, this is a "pipe dream" come true, another American success story. From the time the Black Mesa line began commercial operation, it has been available 99 per cent of the time and it delivers coal at the cost of alternate transportation.

Some of you are wondering, I am sure, why I say the railroads are blocking construction of coal slurry pipelines and yet I have just told you of the successful, current operation of such a pipeline. I should tell you also that the Black Mesa Line is operated by a subsidiary of the Southern Pacific Railroad.

With 12 years of successful operation on two different slurry pipelines, it is natural that when the oil embargo forced a re-examination of our own energy resources, coal slurry pipelines should be considered as a means to help transport the additional quanities of coal energy this country needs. (slide 7) Several routes for coal slurry pipelines are proposed to deliver western coal to the South, the Southwest and the Pacific Northwest. Two of the proposed routes go to Texas, which for decades has been the principle energy supplier of the United States. Texas exports more than half (53%) of the natural gas it produces and almost three-quarters (73%) of its oil. Much of the natural gas that Texas keeps is used as boiler fuel-- 95% of electric power generated in that state comes from natural gas. To stop this wasteful practice, the Texas Railroad Commission has ordered that industrial boilers begin the conversion to other fuels; that's coal, primarily. The same necessity for conversion exists in Arkansas and other states where they used to burn off natural gas as a useless by-product of oil. They are seeking a reliable, inexpensive substitute for their natural gas. (slide 8)

Seventy per cent or more--some say 80 per cent--of the delivered price of coal is in transportation. If this can be stabilized, the cost of energy to the consumer can be controlled. Utility executives estimate the potential savings from coal slurry pipelines in the billions of dollars--dollars that the consumer will not have to pay on his electric bill. (slide 9)

The economics of coal slurry pipelines make these savings possible. In a recent study, conducted by Ebasco Services, it was determined that coal slurry pipelines were more economical than either high voltage transmission lines or unit trains for moving large blocks of power over long distances. (slide 10)

Railroads are subject to inflation. In a coal slurry pipeline, 75 per cent of the cost is fixed, leaving only 25 per cent subject to inflation pressures. For the railroads, practically all of their costs are subject to inflation. Not only are they "labor intensive," but their rolling stock, rails and railroads must be replaced periodically. (slide 11)

As a result, a $7.00 per ton tariff for slurry -- based on 1974 estimates -- would only increase to $8.40 a ton in 20 years. (slide 12)

On the other hand, a 1974 quote of $11.80 a ton for coal by rail would rise $50 a ton in the same 20-year period.

The operation of a coal slurry pipeline (slide 13) is shown in this next slide. When the coal comes from the supplier, it is pulverized and mixed with liquid to form a slurry. Then it is forced by pumps through an underground pipeline to a distant terminal facility. There, giant centrifuges spin the water out of the coal, which moves to the generating station while the water is clarified and used in the cooling system.

Slurry transportation (slide 14) requires a water source, but it provides protection for the environment, it is reliable, it is capital intensive and free from the impact of inflation, and it is economical.

Water has been made into an issue in the fight to gain eminent domain for coal slurry pipelines, but coal slurry requires (slide 15) less water than other processes for converting coal into energy. A power plant, for example, requires 7 to 8 times the water needed by a coal slurry pipeline and other conversion processes, such as gasification or liquefaction, take twice as much.

So far as the environment is concerned, (slide 16) coal slurry pipelines are easily the superior method from an environmental point of view for transporting coal. They are safe. They do not cause range fires or create impact accidents. They are out of sight and, after the pipe is buried, the land is available for other uses. The pipelines are quiet, a quality some communities are beginning to appreciate as they consider the impact of round-the-clock unit train traffic. The pipelines are clean, dustless, smokeless. They are odorless with no fumes, and they do not block traffic crossings.

We believe coal in the west must move by pipeline and by rail if the nation's energy needs are to be met. Slurry pipelines cannot do the job alone nor do we propose that. We believe that with the increased coal production that is forecast, there will be more than enough coal for everyone to carry. (slide 17) And yet the railroads want it all. They say one pipeline will ruin them, but that is a familiar refrain for railroads whenever competition threatens.

That is not a new story either. (slide 18)

A century ago, the railroads tried to block pipelines from the newly developed oil fields in Pennsylvania. Initially, they denied permission for pipelines, other than their own, to go beneath their track. The public was so outraged by this monopolistic attitude that the Pennsylvania legislature granted common carrier pipelines the right of eminent domain to aquire their rights-of-way. Nevertheless, the Columbia Conduit had to use tank wagons at one point to move its crude oil across a stretch of railroad track until the court forced the railroad to permit completion of the 100 foot gap in the pipeline.

The Association I represent also seeks the right to compete. We ask no subsidies, no favors, no handouts; just the right to do business. We support a bill that would authorize the Secretary of Interior to grant certificates of convenience and necessity to the operators of coal slurry pipelines that qualify after hearings on the specific proposal and the filing of an environmental impact statement. The holders of such certificates then would be empowered to use the right of eminent domain in the courts to acquire rights-of-way not available through negotiation, and once in operation, they would be subject to regulation by the Interstate Commerce Commission.

This is not an unusual request, especially when you consider that one mode of transportation arbitrarily refuses passage to a competing pipeline system although they routinely grant similar passage to other pipelines. It is not unusual either for the Secretary of Interior to grant the power of eminent domain. The list of carriers granted eminent domain through the Secretary of Interior starts with the railroads back in 1875. They were allowed eminent domain not only for their rights-of-way but for resources they needed such as timber, fill and rocks on adjacent lands.

In 1902, the Secretary of Interior was authorized to acquire property under eminent domain for irrigation projects specifically to be used by private individuals, and in 1935, the Secretary was authorized to approve the use of eminent domain for acquisition by private companies for the purpose of conserving, producing, buying and selling helium.

In 1938, the same right was granted to natural gas companies.

In 1953, eminent domain was authorized to facilitate the construction of pipelines for the transportation of oil, natural gas, sulphur or minerals, and all licensees of the Federal Power Commission, since 1920, have had eminent domain to acquire land needed for reservoirs and lines that they could not get by contract or pledge.

That is the first point I want to make about the bill we support. It is soundly based on precedent and provides a rigorous examination of each individual proposal.

The second point about the bill is that it specifically leaves any rights to water exactly where they should be--with the states. The bill provides, first, "that the power of eminent domain shall not be exercised to acquire any right to use or develop water." That's in contrast with the rights the railroads enjoyed 100 years ago to take trees and rocks and dirt from adjacent property. Then the bill continues, and I quote:

> "Nothing in this act shall be construed--
>
> (1) as affecting in any way any existing law governing appropriation, use or diversion of water, or any Federal, State, or private right to water;
>
> (2) as expanding or diminishing Federal or State jurisdiction, responsibility, or interests in water resources development or control."

The proceedings of the Fort Union Coal Conference at Bismarck last year suggest to me that you are determined to have control over the development of your own resources. No other energy development system has a clearer statement of that principal in its basic charter than I have just read to you.

> "Nothing," it says, "Nothing in this Act shall be construed as affecting in any way law governing appropriation, use or diversion of water, or any Federal, State, or private right to water..."

I believe the people in the four states represented at this meeting can take care of themselves, but I get the definite feeling in Washington that somebody doesn't trust you; that the very clear statement on the sanctity of existing water laws that I just read really doesn't mean much, and that Congress must protect your water because you can't or won't.

There may be something in all this that I don't understand, but I believe I can recognize cynical self-interest when I see it. When I read in Traffic World last fall, for example, that the Burlington Northern filed for 67,000 acre feet of water a year from the Fort Peck Reservoir for a gasification plant, I wondered about the sincerity of those who show such concern in Washington for the water supply in the "arid west."

Do not misunderstand me. I do not minimize the value of water or your proper concern over its use. I respect that. After all, you are the ones who live here and I think you can make your own decisions.

As I see it, the construction of a coal slurry pipeline involves the successful negotiation of a number of hurdles. And each hurdle should be taken one at a time.

First, there must be a demand for slurried coal, and that exists, especially in the Southwest.

Then, the pipeline must have the ability to pass beneath the railroad tracks, and this, obviously, requires the right of eminent domain.

Finally, there must be a water source. And each certified builder will have to jump that hurdle for himself. The right of eminent domain will not provide it for him, but without water or some other liquid for the slurry, he can't operate. It's a simple as that, but the two issues -- eminent domain and water supply -- must be considered separately.

Once you can examine a specific and detailed plan, many questions that exist today can be resolved on a case by case basis. Some will pass; some may not, but I believe you will find coal pipelines offer attractive options that will make them worth their water.

Faced with the unit train as the only means available to carry millions of tons of coal to market, the silent, out-of-sight pipeline has a definite appeal. Regardless of how much water you allocate for energy conversion here, the demand for coal delivery elsewhere will remain, and at the present time, the unit train "is the only horse you have to ride." In an area such as this, where the transportation of agricultural commodities is of such importance, that would cause me grave concern.

History tells us that freight car shortages have plagued the American farmer since before the turn of the century. Indeed, the first case before the Interstate Commerce Commission in 1887 involved freight car shortages in the Dakota Territory. And the situation hasn't gotten much better, judging from Congressional hearings over the years.

As recently as 1973, witness after witness testified to the chronic shortage of freight cars that was only intensified by the massive Russian grain purchase that year. Commenting on the difficulties in moving agricultural commodities, Stephen Ailes, the head of the Association of American Railroads, said

> "...if the environmentalists had decided that we should be burning coal in some of these utility plants and if we had had a normal coal movement this year, you really would see a problem."

The Burlington Northern has gone on television to tell how much it is doing to increase its coal carrying capacity. During the commercial, you can see a loaded coal train race past on a single track line. And I wonder how many carloads of things you need here and how many things you have to sell elsewhere are side tracked, while coal that could be in a pipeline roars past. You should wonder also.

I am confident that we will win our fight for eminent domain and you will have coal slurry pipelines as a transportation option to consider. The only thing I can't tell you for certain is when, but it will come as soon as the American people realize that there is a limit to the efficiencies that the railroads produce by modifying a concept that is a 100 years old. The unit train was developed under pressure from the first commercial slurry pipeline and it is perhaps the last step in minimizing rail costs by reducing labor and increasing utilization. The logical next step...the ultimate extension of the unit train principle is the pipeline.

The railroads have opposed new types of transportation for years. But we know that now is the time for a broader point of view and the pipeline represents a viable alternative to the old tracked-wheel concept.

APPENDIX "B"

Wyoming Water Quality Rules And Regulations

GREAT SEAL OF THE STATE OF WYOMING
EQUAL RIGHTS
LIVE STOCK
MINES

1974

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY STANDARDS
FOR WYOMING

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

State of Wyoming

I certify that the copy hereto attached is a true copy of the amended standards of the Wyoming Department of Environmental Quality relating to Water Quality Standards for Wyoming and that the original standards are on file in this Department. These standards supersede "Water Quality Standards for Wyoming", Approved and Adopted June 28, 1973 by the Wyoming Department of Health and Social Services, and all other standards previously filed.

Approved and Adopted July 30, 1974 by the Wyoming Environmental Quality Council.

Dated August 8, 1974

By: Robert E. Sundin

Robert E. Sundin, Director
Wyoming Department of Environmental Quality

CHAPTER 1

WATER QUALITY STANDARDS FOR WYOMING

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CHAPTER 1

WATER QUALITY STANDARDS FOR WYOMING

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Section 1. Authority. 1973 Cumulative Supplement, 35-502.19, 1973 Session Laws, 35-487.19.

So that the State of Wyoming will be in compliance with Section 303 of Public Law 92-500, popularly called "The Federal Water Pollution Control Act Amendments of 1972", the State Department of Environmental Quality has promulgated the following Water Quality Standards for Wyoming.

Section 2. Definitions.

a.	Chemical Conditions	Refers to chemical elements and compounds which are found in the ionized complexed or dissolved state in water (i.e. calcium, sulfate, dissolved oxygen).
b.	Conventional Water Treatment	Shall be considered to be, in order of application, the following processes: coagulation, sedimentations, filtration, and chlorination.
c.	Dissolved Oxygen	A measure of the amount of free oxygen in the water.
d.	Effluent	Any point source wastewater discharged directly or indirectly to the waters of the State or to any storm sewer, and the runoff from land used for the disposition of wastewater or sludges.
e.	Effluent Limitations	Means any restriction established by the State or by the Administrator of the EPA on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of the State, including schedules of compliance.
f.	Fecal Coliform	The portion of the coliform bacteria group which is present in the gut or feces of warm-blooded animals. It generally includes organisms which are capable of producing

	gas from lactose broth in a suitable culture medium within 24 hours at 44.5° C ± .5° C.
g. Full Body Contact Recreation	Any recreational or other water use in which there is prolonged and intimate contact with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard (i.e. swimming, water skiing).
h. Game Fish	Wyoming Game and Fish laws as amended in the forty-second Legislative Session, Section 23.1-1, define game fish as: Bass, Catfish, Crappie, Grayling, Ling, Northern Pike, Perch, Salmon, Sauger, Sunfish, Trout, Walleye, and Whitefish.
i. Jackson Turbidity Units (J.T.U.)	A measure of turbidity based on the length of the light path through a suspension which causes the image of the flame of a standard candle to become indistinct against the general background illumination. The longer the light path, the lower the turbidity.
j. Milligrams per liter (mg/l)	Milligrams of solute per liter of solution--equivalent to parts per million (ppm)--assuming unit density.
k. Natural Origin	Not caused or influenced by activities of man.
l. Parameter	One of a set of physical or chemical properties whose values determine the characteristics of a physical system--in this case water.
m. Parts per million (ppm)	See Milligrams per liter.

n. pH	Term used to express the intensity of the acid or alkaline condition. A pH value of 7 at 25^{0} C is neutral with pH's of less than 7 progressively more acid and pH's of greater than 7 progressively more basic (alkaline).
o. Physical Conditions	Refers to non-chemical factors in water (i.e. temperature, flow, turbidity).
p. Pico-curies per liter (pCi/l)	10^{-12} curie, where a curie is defined as 3.7x10^{10} disintegrations per second.
q. Pollutant	Shall mean the same as, and be included within the meaning of "wastes". It shall include, but not be limited to, the following: dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.
r. Salinity	The sum of the dissolved mineral constituents in water expressed as mg/l. Equivalent to "Total Dissolved Solids".
s. Secondary Body Contact Recreation	Any recreational or other water use in which contact with water is either incidental or accidental and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, hunting, and commercial and recreational boating.
t. Total Dissolved Solids	The sum of the dissolved mineral constituents in water expressed as mg/l. Equivalent to Salinity.

u. Toxic Pollutant	Those pollutants, or combinations of pollutants, including disease causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of the EPA, cause death, disease, behavioral abnormalities, cancer, genetic malfunctions, physiological malfunctions (including malfunctions in offspring), or physical deformations in such organisms or their offspring.
v. Wastewater	Sewage, industrial waste, or other waste, or any combination of these, whether treated or untreated.
w. Waters	Permanent and intermittent stream segments, and lakes and reservoirs other than man-made retention ponds used for the treatment of municipal, agricultural, or industrial wastes.

Section 3. Goal. The goal of the water pollution control program is to maintain the best possible quality of water commensurate with use. All sources of pollution, whether man-made or natural, shall be considered. Control shall be applied to all sources where physically and economically feasible. By the nature of the problems, they will evolve into long range and short range programs to reach the ultimate goal. Definition of such problems and control programs will be a part of the State Continuing Planning Process.

Section 4. Water Classes and Uses. It shall be the policy of the State of Wyoming to preserve and protect fish and aquatic life in all waters in which physical and chemical conditions are suitable for this use.

There are three classes of water in Wyoming:

a. Class I. Those waters which, based on information supplied by the Wyoming Game and Fish Department, are determined to be presently supporting game fish or have the hydrologic and natural water quality potential to support game fish.

b. Class II. Those waters which, based on information supplied by the Wyoming Game and Fish Department, are determined to be presently supporting non-game fish or have the hydrologic and natural water quality potential to support non-game fish.

c. Class III. Those waters which, based on information supplied by the Wyoming Game and Fish Department, are determined as not having the hydrologic or natural water quality potential to support fish.

Section 5. Classification of Specific Waters. Classification of specific waters will be included as part of each State Program Plan submission. The State Program Plan is submitted on an annual basis to the U.S. Environmental Protection Agency and must by presented at a public meeting in the State. This will allow annual revisions and updating of the classification of the State's waters.

Priority for classification will be given to those waters which receive pollutants. A water must be classified before any permit to discharge to that water is issued.

Classification of waters which do not receive pollutants will be made only when adequate water quality and flow data is available.

Section 6. Development of Standards. Based upon use criteria, existing quality and sources of pollutants, standards for fifteen different parameters have been established.

The basic standards evolve from the fact that some parameters are common to all uses, and one use (preservation and propagation of fish and other aquatic life) is common to all other uses.

Other guides considered in the development of these standards are as follows:

a. Supplementary standards will not be written for constituents that are not expected to be present, or in such low concentrations as to present no problem in the foreseeable future.

It is the basic concept that additional standards can be adopted at any time conditions indicate, providing the prescribed procedure is followed.

b. Specific numerical limits will not be established for toxic materials, as all possible compounds, combinations and effects are not known.

c. Bacteriological standards apply to all Class I, II, and

III waters. However, as a general policy, the Department of Environmental Quality considers only reservoirs and lakes below 7,000 feet above sea level as being suitable for full body contact sports.

Section 7. Degree of Treatment. It is the policy of the Department of Environmental Quality that wastes will receive, prior to discharge, the degree of treatment necessary to conform with the effluent limitation provisions of Public Law 92-500.

Section 8. General Interpretation. Wherever interpretations are required, the following reasoning shall apply: "The basic reason for establishing standards is to protect or enhance the water use and not to aid or protect the polluter".

Section 9. Control Points. Generally, the following policies will govern the selection of sampling sites.

a. Bacteriological standards which provide protection for public water supply and full body contact recreation will be determined at water supply intakes and designated full body contact recreation areas. Bacteriological standards covering secondary body contact may be determined at any point on the stream.

b. Basic chemical analyses will be determined from samples taken at established United States Geological Survey sampling points, or other points established by the Wyoming Department of Environmental Quality.

c. Parameters which are toxic or generally affect aquatic life, wildlife, etc. will be determined at any point in the stream as indicated by conditions.

d. Compliance with Water Quality Standards shall be determined after allowing reasonable time for mixing. Size of the mixing zone shall be determined after consideration of the affect of the discharge on the biological community, water uses, and aesthetic conditions, as well as consideration of the flow conditions and physical nature of the receiving water. The Wyoming Department of Environmental Quality will then determine the area and/or volume of the receiving water assigned to the mixing zone.

It shall be the goal to promote treatment which will, in time, allow the standards to be applied in the zone of mixing, i.e. diffusion or rapid mixing.

Section 10. Testing Procedures. For determination of the parameters involved in the standards, analysis will be in accord with test procedures as defined pursuant to: Title 40, Code of Federal Regulations, Part 136, or any modifications thereto. For test procedures not listed in the Code of Federal Regulations, test procedures outlined in the latest editions of:

W.Q.O. Methods for Chemical Analysis of Water and Wastes, or Standard Methods for the Examination of Water and Wastewaters, or A.S.T.M. Standards, Part 23, "Water: Atmospheric Analysis" shall be used.

Where standard methods of testing have not been established, the suitablity of testing procedures shall be determined by the Wyoming Department of Environmental Quality and the U.S. Environmental Protection Agency.

Section 11. Flow Conditions. Where stream flow data is available, the water quality standards shall apply at all times except during periods when flows are less than the average minimum consecutive seven day flow which occurs once in ten years. During periods when stream flows are less than the minimums described above, the Wyoming Game and Fish Department and Wyoming Department of Environmental Quality may require the discharger to institute operational modifications as necessary to insure the protection of aquatic life.

Where stream flow data is not available, the Wyoming Department of Environmental Quality must take into consideration the possible existence of markedly abnormal low flow when determining violations of water quality.

Section 12. Interstate Compacts, Court Decrees and Adjudicated Water Rights. It is the policy of the Wyoming Department of Environmental Quality that the adoption of pollution standards for Wyoming waters and the enforcement of such standards is not intended to conflict with the apportionment of water to the State of Wyoming through any of the interstate compacts or court decrees or to interfere with the rights of Wyoming appropriators in the utilization of the water appropriations which have been granted to them under the statutory procedure.

Section 13. High Quality Waters. Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at high quality; provided that the State of Wyoming has the power to authorize any project or development, which would constitute a new source of pollution or an increased source of pollution to high quality water, when it has been affirmatively demonstrated that a change is justifiable to provide necessary economic or social development; provided further that the necessary degree of waste treatment to maintain high water quality will be required where physically and economically feasible. Present and anticipated use of such waters will not be precluded under the conditions aforesaid. In implementing this policy, outstanding and unique scenic, recreational, ecological, agricultural, botanical, historical, archaelogical, geological, fish and wildlife values and other aesthetic and cultural values of present and future benefit to the people shall be considered. The administrator of the Environmental Protection Agency will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act, as amended.

Section 14. Application. The following water quality standards (Sections 15-29) apply to Wyoming waters.

Section 15. Settleable Solids. All Wyoming waters shall be essentiall free from substances of other than natural origin that will settle to form sludge, bank or bottom deposits.

Section 16. Floating Solids. All Wyoming waters shall be essencially free from floating debris, scum and other floating materials of other than natural origin in amounts sufficient to be unsightly.

Section 17. Taste, Odor, and Color. All Class I and II waters shall be essentially free from substances of other than natural origin which produce taste, odor and color that would:

a. of themselves or in combination, impart an unpalatable or off-flavor in fish flesh.

b. visibly alter the natural color of the water, or impart color to skin, clothing, vessels or structures.

c. produce detectable odor at the site of use.

d. directly or through interaction amoung themselves, or with chemicals used in the existing water treatment process, result in concentrations that will impart undesirable taste or odor to the finished water.

Section 18. Public Water Supply. When public water supply is a designated use, water quality will be such that after conventional water treatment, the treated water will meet the most recent Federal Drinking Water Standards, published by the U.S. Public Health Service, the U.S. Environmental Protection Agency, or their successor.

Section 19. Toxic Material. All Wyoming waters shall be essentially free from toxic, corrosive or other deleterious substances of other than natural origin in concentrations or combinations which are toxic to human, animal, plant or aquatic life. This standard is not intended to interfere with the use of approved fish toxicants under the supervision of the Wyoming Game and Fish Department for fish management purposes.

Section 20. Radioactive Material. In all Wyoming waters, radioactive material of other than natural origin shall not:

a. be present in any amount which reflects failure in any case to apply all controls which are physically and economically feasible.

b. exceed a concentration of 3 pCi/l of Radium 226, 10 pCi/l of Strontium 90, or the limits established in the most recent Federal Drinking Water Standards, published by the U.S. Public Health Service, the U.S. Environmental Protection Agency, or their successor.

Section 21. Turbidity. In all Class I and II waters, wastes of other than natural origin shall not cause the natural turbidity of the water to be increased by more than ten (10) Jackson Turbidity Units.

In addition, in waters designated for full body contact recreation, wastes of other than natural origin shall not be discharged in amounts which will increase turbidity to the extent that a Secchi disc is not visible at a depth of one (1) meter.

Section 22. Dissolved Oxygen. In all Class I waters, wastes of other than natural origin shall not be discharged in amounts which will result in death or injury to existing aquatic life or which will result in a dissolved oxygen content of less than 6 mg/l (ppm) at any time.

In all Class II waters, wastes of other than natural origin shall not be discharged in amounts which will result in injury or death to existing aquatic life or which will result in a dissolved oxygen content of less than 5 mg/l (ppm) at any time.

Over spawning areas, wastes of other than natural origin shall not be discharged in amounts which will cause a reduction in the natural dissolved oxygen content, unless such reduction is the result of a thermal discharge allowed under the experimental variance clause of Section 23 of these standards.

Section 23. Temperature. For Class I and II waters, wastes of other than natural origin shall not be discharged in amounts which raise natural ambient water temperatures to levels which are deemed to be harmful to existing aquatic life.

For streams where natural temperatures do not exceed 68° F, wastes of other than natural origin shall not be discharged in amounts which will result in a change of more than 2° F over existing temperatures.

For streams where natural temperatures exceed 68° F, wastes of other than natural origin shall not be discharged in amounts which will result in a change of more than 4° F over existing temperatures in warm water fisheries, 2° F in cold water fisheries and 2° F in impoundments.

The maximum allowable stream temperatures will be the maximum daily stream temperatures plus the allowable rise; provided that this temperature is not lethal to existing fish life, which is considered to be 78° F in the case of cold water fish and 90° F in the case of warm water fish.

Temperature standards shall apply at all depths of the receiving water and may not be violated at any depth.

In all waters supporting warm and/or cold water fish, there shall be no induced temperature change over spawning beds, except for experimental purposes.

For questions concerning the suitability of waters for warm or cold water aquatic life, or concerning the location of spawning beds, the Wyoming Game and Fish Department shall be the final authority.

Variances of the "allowable rise" standards may be allowed for experimental purposes. Such variances must be approved by the Wyoming Game and Fish Department and the Wyoming Department of Environmental Quality, and shall not be allowed for periods greater than five years. At the end of the approved variance period, the discharger must begin compliance with temperature standards or receive another variance approval from the Wyoming Game and Fish Department and the Wyoming Department of Environmental Quality.

Section 24. pH. For all Wyoming waters, wastes of other than natural origin shall not cause the pH to be less than 6.5 or greater than 8.5.

Section 25. Coliform Bacteria. For still water bodies which lie at an altitude of less than 7,000 feet above sea level, the following limits shall apply:

a. During the recreation season (May 1 through September 30), wastes of other than natural origin shall not be discharged in amounts which will cause fecal coliform concentrations to exceed a geometric mean of 200 fecal coliform groups per 100 milliliters, based on a minimum of not less than five samples obtained during separate 24-hour periods for any 30-day period, nor shall ten percent of the samples exceed 400 groups per 100 milliliters during any 30-day period.

In addition, the above standard will also apply to the following streams:

1) The North Platte River starting at the Colorado-Wyoming state line and extending downstream to the outlet of Alcova Reservoir, and including tributaries, the Encampment River and Big Creek.

2) The Tongue River from the intake of the Ranchester

Municipal Water Treatment Plant upstream to the headwaters.

3) The Green River commencing with the waters of Flaming Gorge Reservoir at the Wyoming-Utah state line, upstream to its headwaters.

4) The Snake River commencing at the Wyoming-Idaho state line, upstream to the south boundary of Yellowstone Park.

For all other waters the following limits shall apply:

b. During the recreation season (May 1 through September 30), fecal coliform concentrations shall not exceed a geometric mean of 1,000 fecal coliform groups per 100 milliliters, based on a minimum of not less than five samples obtained during separate 24-hour periods for any 30-day period, nor shall ten percent of the samples exceed 2,000 groups per 100 milliliters during any 30-day period.

Section 26. Undesirable Aquatic Life. All Wyoming waters shall be free from substances and conditions or combinations thereof, which are attributable to municipal, industrial, or other dischargers or agricultural practices, in concentrations which produce undesirable aquatic life.

Section 27. Oil and Grease. In all Wyoming waters, wastes of other than natural origin shall not be discharged, which will cause the oil and grease content to exceed 10 mg/l, formation of a visible oil film or globules, discoloration of the surface, or formation of visible deposits on the bottom or shoreline.

Section 28. Total Gas Pressure. In all Wyoming waters designated as being suitable for cold water aquatic life by the Wyoming Game and Fish Department, discharges from impoundments or other sources shall not cause the total dissolved gas pressure to exceed 110 percent of existing atmospheric pressure.

Section 29. Salinity.

a. High salinity (Total Dissolved Solids) is recognized as an important water quality parameter which may, in some cases, cause adverse physical and economic impact on water users. Salinity concentrations are affected by two basic processes:

1) Salt loading--the addition of mineral salts from various natural and man-made sources, and

2) Salt concentrating--the loss of water from the system through consumptive use or depletion.

b. Studies to date have demonstrated that high salinity of strea
systems can be alleviated. Although further study may be required to

determine the economic and technical feasibility of controlling specific sources, sufficient information is available to develop a salinity control program. Emphasis will be placed on controlling high salinity through improved water management and conservation practices.

c. The State of Wyoming is a member of the Colorado River Basin Salinity Control Forum, which includes all states in the Colorado River Basin. This forum has adopted the following salinity control policy:

"It shall be the policy that the salinity (Total Dissolved Solids) of the Colorado River System be maintained at or below the average value found in the lower mainstem during 1972. In order to implement this policy, water quality standards for salinity and a plan of implementation for salinity control shall be developed and adopted not later than October 18, 1975".

JFW:kr-jk
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FORMAL REQUEST MADE BY THE WATER ALLOCATION AND QUALITY PROBLEMS TASK FORCE OF THEIR RESPECTIVE LEGISLATIVE SERVICE AGENCIES

The Water Allocation and Quality Problems Task Force has elected to continue meetings similar to those presently being held and conducted under the National Science Foundation grant. The task force envisions this type of continuous meeting, through a "standing committee," as helpful in keeping the communications between the four states open and active and also keeping the states continually updated regarding laws, rules, regulations, standards, and allocation changes.

The present members of the Water Allocation and Quality Problems Task Force would like to have their respective legislative service agencies appoint people to the standing committee (each agency need not confine itself to the five members from their state now serving on the Water Allocation and Quality Problems Task Force). The task force requests the legislative service organizations ensure both legislative input and executive input into the standing committee. It is requested that the legislative service agencies organize and plan a two-day meeting held annually with a full and complete agenda relative to interests of and concerns relating to water allocation and quality in the four states. The task force members also request that the legislative service organizations arrange for a budget to include travel and other expenses for the delegates of the standing committee based on delegate composition to attend these meetings. Information on estimated expenses for this type of meeting will be supplied by the North Dakota Legislative Council.